Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of AT&T Corp. Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Interstate Special Access Services	**RM No. 10593**

Reply Declaration

of

LEE L. SELWYN

on behalf of

AT&T Corp.

January 23, 2003

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REPLY DECLARATION OF LEE L. SELWYN

Introduction

Lee L. Selwyn, of lawful age, declares and says as follows:

1. My name is Lee L. Selwyn; I am President of Economics and Technology, Inc. ("ETI"), Two Center Plaza, Suite 400, Boston, Massachusetts 02108. ETI is a research and consulting firm specializing in telecommunications and public utility regulation and public policy. I have participated in proceedings before the Federal Communications Commission ("FCC" or "Commission") dating back to 1967 and have appeared as an expert witness in hundreds of state proceedings before more than forty state public utility commissions. My Statement of Qualifications is annexed hereto as Attachment 1 and is made a part hereof.

2. I have been asked by AT&T to review and analyze the various factual claims advanced by the RBOCs in support of their contention that reinstatement of price regulation for special

access services is not required. Specifically, the RBOCs have challenged evidence presented by AT&T in support of its *Petition* that special access prices in MSAs subject to Phase II pricing flexibility have increased relative to special access prices that remain subject to price cap regulation, that rates of return on special access services have risen to patently excessive levels, and that competition for special access services in areas subject to Phase II pricing flexibility is not sufficient to constrain RBOC exercise of market power with respect to these services. As I show in this declaration, these RBOC contentions are without merit and in no sense refute or otherwise undermine the factual basis for AT&T's *Petition*.

Summary

3. As revealed in the documentation supporting AT&T's initial petition, ample evidence exists that prices for special access services have increased in areas in which the RBOCs have been granted full Phase II pricing flexibility. In their comments regarding AT&T's evidence, the RBOCs launched a multi-faceted attack that surprisingly left untouched the most compelling of piece of AT&T's evidence, its comparison of the prices for special access services tariffed in areas in which pricing flexibility has been granted to the prices that remain in effect in price caps regulated areas. In the material below, I provide further evidence of special access price increases through examination of the RBOCs' tariffs, and demonstrate that Verizon's defense of its price increases does not explain the increases that have actually occurred. I also provide evidence to refute the RBOCs' claim that CLECs have deployed or are in a financial position to deploy their own facilities to serve a substantial portion of the buildings occupied by special access customers. I establish, to the contrary, that competitively provided special access facilities are only available at an extremely small number of commercial buildings, compelling IXCs to acquire the vast majority of these services from the ILEC. Even in the most competitive MSA in the US, New York, where AT&T provides service at 3,613 different buildings, no AT&T or other CLEC facilities are available at 89.9% of building locations. Finally, I demonstrate that

the RBOCs' have produced very weak evidence in their attempts to discredit AT&T's analysis of special access rates of return based on data reported to the Commission under ARMIS and show that, in fact, ARMIS data provides a *conservative* estimate of RBOC rates of return on Special Access Services.

1. PRICING OF SPECIAL ACCESS SERVICES IN MSAs SUBJECT TO PHASE II PRICING FLEXIBILITY

RBOC comments deflect attention away from compelling price comparison data included in AT&T's Petition.

4. The basic premise upon which the FCC relied in establishing guidelines for Phase II pricing flexibility in CC Docket 96-262 was that if the required level of collocation of CLECs in ILEC central offices had been established, there would at that time be a sufficient level of competition in those markets to constrain ILEC market power and thereby obviate the need for continued price regulation of special access services.[1] On that basis, one would *expect* that where the conditions for Phase II pricing flexibility had been satisfied and that pricing flexibility had been implemented, special access prices in those areas would have actually decreased by a greater relative amount than in those (putatively less competitive) areas still subject to price cap regulation. Indeed, in their Reply Declaration, AT&T Declarants Ordover and Willig note specifically that the purported "need" to drop prices in response to competition was specifically advanced by the RBOCs as a basis for the pricing flexibility that they had sought.[2] That aside, with its *Petition* AT&T has provided detailed evidence demonstrating that not only have special access prices not decreased by a greater relative amount in MSAs subject to Phase II pricing flexibility than in areas that remain subject to price regulation, but that in fact under "pricing flexibility" the RBOCs have actually *increased* special access rates where permitted to do so.

5. While the RBOCs and their experts have gone to great lengths in their attempts to discredit the competition and rate of return (ROR) analyses proffered in support of AT&T's *Petition*, they have said little in regard to the *prima facie* evidence of increasing prices — the

1. *Pricing Flexibility Order,* 14 FCC Rcd. 14221 (1999).

2. Ordover/Willig Reply Decl., at para. 33.

comparison of price levels for price cap regulated services versus those for services where Phase II pricing flexibility has been granted.[3]

6. Verizon's is the only Comment that attempts to address AT&T's evidence that BOC special access prices have *increased* in those MSAs in which Phase II pricing flexibility has been allowed. Other RBOC comments either ignore AT&T's pricing data entirely, or mention it only in passing.[4] In Footnote 58 of its filing, Verizon claims that the changes in its special access prices represent a mixture of increases and decreases. While it is within the realm of possibility that prices for some elements of Verizon special access service in Verizon's Phase II areas did decline, our review of the tariffs failed to reveal any such instance. Apparently, the "mixture" of increases and decreases to which Verizon was referring in its footnote 58 consists of *increases* in those areas in which pricing flexibility has been granted and *decreases* in the remaining areas where special access rates remain subject to price cap regulation.

7. Specifically, Verizon claims that its price changes are part of an attempt to "expand the differential between zones 1, 2 and 3."[5] Analysis of Verizon's pricing data, however, proves this defense of its price changes to be untrue. As the table below demonstrates, Verizon has applied straight, across-the-board increases to the pricing flexibility price ranges for all three zones, such that the relative "differential between zones 1, 2 and 3" has actually remained *unchanged* although the rate *levels* have risen. The sample data in the table below are based upon the pricing for DS-3 single channels at an "initial" premises at month-to-month rates.

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3. See Declaration of Joseph M. Stith, AT&T Petition.

4. See, e.g., the mention of the pricing evidence in Bell South's comments only in reference to a criticism of AT&T's ARMIS based analysis. BellSouth Comments at footnote 7.

5. Verizon Comments, at fn. 58.

Although limited to a single category of channel terminal prices, the results are consistent with the changes made to Verizon's other special access rate elements as well.

Table 1

Contrary to Its Claims, the Changes that Verizon has made to its Special Access Tariffs Do Nothing to "Increase the Differential" between Zone prices

Company Name	State	Zone/Band	Standard Pricing "Initial Premises" DS3 Chan Term*	Phase II Pricing Flexibility "Initial Premises" DS3 Chan Term*	% by which Phase II prices have been increased over Price Cap Levels
Verizon	DC,DE, MD, NJ,	Zone 1/Band 4	$2,667.50	$3,025.00	13%
FCC Tariff No. 1	PA, VA, WV	Zone 2/Band 5	$2,800.88	$3,176.25	13%
		Zone 3/Band 6	$2,934.25	$3,327.50	13%
Differential between Zone 1/ Band 4 and Zone 3/Band 6			10%	10%	
Verizon	MA	Zone 1/Band 4	$2,310.00	$2,541.00	10%
FCC Tariff No. 11		Zone 2/Band 5	$2,425.50	$2,668.05	10%
		Zone 3/Band 6	$2,541.00	$2,795.10	10%
Differential between Zone 1/ Band 4 and Zone 3/Band 6			10%	10%	
Verizon	NY, CT	Zone 1/Band 4	$2,310.00	$2,541.00	10%
FCC Tariff No. 11		Zone 2/Band 5	$2,425.50	$2,668.05	10%
		Zone 3/Band 6	$2,541.00	$2,795.10	10%
Differential between Zone 1/ Band 4 and Zone 3/Band 6			10%	10%	
Verizon	ME, NH, RI, VT	Zone 1/Band 4	$2,541.00	$2,795.10	10%
FCC Tariff No. 11		Zone 2/Band 5	$2,541.00	$2,795.10	10%
		Zone 3/Band 6	$2,541.00	$2,795.10	10%
Differential between Zone 1/ Band 4 and Zone 3/Band 6			0%	0%	

Note *: This is the monthly rate for a primary location with a single DS3 CT.

Source: The Verizon Telephone Companies Access Service Tariff F.C.C. No. 11, section 31.7.9 (A) (1) C effective April 28, 2001, Section 30.7.9(A)(1)C, effective November 8, 2002, The Verizon Telephone Companies access Service tariff F.C.C. No. 1, section 7.5.9(B)(1)(d), effective January 5, 2002.

8. Verizon goes on to suggest that another reason for its price changes is an attempt to bring the rates between Verizon North (the former NYNEX states) and Verizon South (the former Bell

Atlantic states) more in line.[6] In point of fact, however, as the data on the table below demonstrates, the gap between the prices charged by Verizon South and Verizon North is greater in areas in which pricing flexibility has been granted than it is elsewhere.

Table 2

Contrary to Its Claims, the Changes that Verizon has made to its Special Access Tariffs Do Nothing to Bring the Prices in Verizon North and Verizon South Territories "More in Line"

Company Name	State	Zone/Band	Standard Pricing "Initial Premises" DS3 Chan Term *	Phase II Pricing Flexibility "Initial Premises" DS3 Chan Term *
Verizon FCC Tariff No. 1	DC,DE, MD, NJ, PA, VA, WV	Zone 1/Band 4	$2,667.50	$3,025.00
		Zone 2/Band 5	$2,800.88	$3,176.25
		Zone 3/Band 6	$2,934.25	$3,327.50
Verizon FCC Tariff No. 11	MA, NY, CT	Zone 1/Band 4	$2,310.00	$2,541.00
		Zone 2/Band 5	$2,425.50	$2,668.05
		Zone 3/Band 6	$2,541.00	$2,795.10
Verizon FCC Tariff No. 11	ME, NH, RI, VT	Zone 1/Band 4	$2,541.00	$2,795.10
		Zone 2/Band 5	$2,541.00	$2,795.10
		Zone 3/Band 6	$2,541.00	$2,795.10
Amount by which Verizon South rate exceeds Verizon North (MA, NY, CT)				
		All Zones	15%	19%
Amount by which Verizon South rate exceeds Verizon North (ME, NH, RI, VT)				
		Zone 1/Band 4	10%	14%
		Zone 2/Band 5	10%	14%
		Zone 3/Band 6	15%	19%

Note *: This is the monthly rate for a primary location with a single DS3 CT.
Source: The Verizon Telephone Companies Access Service Tariff F.C.C. No. 11, section 31.7.9 (A) (1) C effective April 28, 2001, Section 30.7.9(A)(1)C, effective November 8, 2002, The Verizon Telephone Companies Access Service Tariff F.C.C. No. 1, Section 7.5.9(B)(1)(d), effective January 5, 2002.

6. Verizon Comments, at fn. 58.

9. Particularly noteworthy in Verizon's case are the phenomenal increases in the price for Verizon South DS3 channel terminations at "secondary premises,"[7] an entire class of customer locations (not limited to specific geographic areas within an MSA) that is less likely to have competitive options available to it. While the variance between prices for a "primary premises" DS-3 channel termination in the Verizon South FCC Tariff No. 1 offered at standard price caps regulated prices and that available in Phase II MSAs is 13% (between $350 and $400 more in Phase II areas depending upon density zone), the variance for "secondary premises" channel terminations is 71% (ranging between $1,210 and $1,331 more in Phase II areas). Verizon's gap in the price for a DS-3 channel termination located in density Zone 1 in the most competitive MSAs in Verizon South territory (encompassing the downtown areas of places like Pittsburgh, PA and Richmond, VA) from the level of $1,700.96 found in the price caps regulated areas to $2,911.37 — a gap of more than 70% — does not begin to be justified by any of the explanations being advanced in Verizon's comments.

7. While the definition of a secondary premises in Verizon's tariff (at Verizon FCC No. 1, Section 7.4.1.A.1) is rather unhelpful, a full reading of the rate regulations reveals rather clearly that the "primary premises" is an IXC POP, and the "secondary premises" is a end user customer premises.

Table 3

The extraordinary increases in Phase II prices for Secondary Premises DS3 Channel Terminations in Verizon South Territory are not explained by any of the justifications offered by Verizon

Company Name	State	Zone/Band	Standard Pricing "Secondary Premises" DS3*	Phase II Pricing Flexibility "Secondary Premises" DS3*	% by which Phase II prices have been increased over Price Cap Levels
Verizon	DC,DE, MD, NJ,	Zone 1/Band 4	$1,700.96	$2,911.37	71%
FCC Tariff No. 1	PA, VA, WV	Zone 2/Band 5	$1,786.01	$3,056.94	71%
		Zone 3/Band 6	$1,871.06	$3,202.51	71%
Differential between Zone 1/ Band 4 and Zone 3/Band 6			10%	10%	
Verizon	MA, NY, CT	Zone 1/Band 4	$1,700.96	$1,871.06	10%
FCC Tariff No. 11		Zone 2/Band 5	$1,786.01	$1,964.61	10%
		Zone 3/Band 6	$1,871.06	$2,058.17	10%
Differential between Zone 1/ Band 4 and Zone 3/Band 6			10%	10%	

Note *: This is the monthly rate for a secondary location DS3 CT.

Source: The Verizon Telephone Companies Access Service Tariff F.C.C. No. 11, section 31.7.9 (A) (1) C effective April 28, 2001, Section 30.7.9(A)(!)C, effective November 8, 2002, The Verizon Telephone Companies Access Service Tariff F.C.C. No. 1, Section 7.5.9(B)(1)(d), effective January 5, 2002.

10. Verizon has increased its prices for channel terminations in Phase II pricing areas virtually across-the-board, while keeping the prices for the transport component constant. None of the justifications advanced by Verizon at footnote 58 of its Comments — *viz.:* increasing the differentials among Zones 1, 2 and 3, rationalization of Verizon North and Verizon South rates, and the claim that the channel termination rate increases applied only to its month-to-month rates and not to its Contract Tariff rates — adequately account for this change. As shown in Table 4 below, using month-to-month prices for a single DS-3 as an example once again, the portion of the total price for a two-ended access circuit with 10 miles of associated interoffice transport increased by 36%, while the transport component itself remained unchanged. For DS-1 circuits, Verizon has raised channel terminations in some Phase II areas by up to 24%, while increasing

transport by only 4%.[8] The price of a full DS-1 circuit with 10 miles of transport has increased almost 11%, with channel termination accounting for over 46% of the circuit price.[9]

Table 4

Verizon has limited most of the increases in its Phase II Tariffs to Channel Terminations, leaving the prices for Transport at Price Caps levels

	Standard Pricing	Phase II Pricing	% by Which Phase II Exceeds Standard Pricing
VZ-South - Zone 1/Band 4			
Initial Premises CT	$2,667.50	$3,025.00	13%
Secondary Premises CT	$1,700.96	$2,911.37	71%
Transport Fixed Charge	$825.00	$825.00	0%
Transport Mileage: 10 miles	$1,550.30	$1,550.30	0%
Total Circuit Price	$6,743.76	$8,311.67	23%
CT Portion of Circuit Price	$4,368.46	$5,936.37	36%
VZ-North - Zone 3/Band 6			
Initial Premises CT	$2,541.00	$2,795.10	10%
Secondary Premises CT	$1,871.06	$2,058.17	10%
Transport Fixed Charge	$825.00	$825.00	0%
Transport Mileage: 10 miles	$1,550.30	$1,550.30	0%
Total Circuit Price	$6,787.36	$7,228.57	7%
CT Portion of Circuit Price	$4,412.06	$4,853.27	10%

Source: The Verizon Telephone Companies Access Service Tariff F.C.C. No. 11, section 31.7.9 (A) (1) C effective April 28, 2001, Section 30.7.9(A)(1)C, effective November 8, 2002, The Verizon Telephone Companies Access Service Tariff F.C.C. No. 1, Section 7.5.9(B)(1)(d), effective January 5, 2002.

8. The Verizon Telephone Companies Access Service Tariff, F.C.C. No. 11, sections 31.7.9 (A) (1) (a) effective July 2, 2002 and 30.7.9 (A) (1) (a), effective January 5, 2002; The Verizon Telephone Companies Access Service Tariff, F.C.C. No. 11, sections 31.7.9 (B) (2) and 30.7.9 (B) (2), effective January 5, 2002.

9. DS-1 Channel Termination in Massachusetts Zone 2/Band 5 increased from a standard rate of $228.25 to $283.55. Transport charges increased from $53.00 to $55.00, with a per mile transport charge of $26.30 standard rate, and $27.37 Phase II rate.

11. Verizon also indicates that an analysis of prices offered in areas in which pricing flexibility has been granted that is based upon the non-contract based prices is flawed because Verizon has filed Contract Tariffs and those Contract Tariff based price levels are the pertinent prices.[10] While I dispute Verizon's contention that any pricing analysis must be based upon Contract Tariff based prices, I nonetheless evaluated whether the existence of the Contract Tariffs affected the conclusions yielded by AT&T's initial analysis. The answer is that it does not.

12. As of the date that this declaration was being prepared, more than eighteen months after it had been granted pricing flexibility, Verizon had filed only two Contract Tariffs. And although pricing flexibility has been granted in most of the largest of Verizon's markets, the magnitude of special access revenues covered by those two Contract Tariffs represent less than 10% of Verizon's Special Access revenues as reported for calendar year 2001, suggesting that they likely represent an even smaller portion of Special Access revenues today.[11]

13. Moreover, the level of discount being offered through each of Verizon's Contract Tariffs (structured as a discount off of the Phase II general price levels) does not necessarily even compensate for the increases found in the pricing flexibility tariffs. In other words, even with the Contract Tariff discounts, the prices for many pricing flexibility services are still above the levels available for the same services in price cap regulated areas. As the table below illustrates, the application of "incentives" available through Verizon's Contract Tariff Option 1. CT Option 1 requires commitment to deliver $301-million in special access billing during the first

10. Verizon Comments, at fn. 58.

11. Based upon the overall volume threshold and minimum traffic requirements found in the two Verizon Contract Tariffs, the aggregate commitment to service is in the range of approximately $400-million per year for both contracts combined across all regions. See, Verizon FCC No. 1, Section 21, Verizon FCC No.11, Section 32, and Verizon FCC No. 14, Section 21. Verizon's reported special access revenues per ARMIS for 2001 were in excess of $4.7-billion.

year of the contract (escalating to $386-million by the third year), and offers "incentives" for delivery of Product Suite traffic as well. The relevant Product Suite in CT 1 is DS3 Service, and for year one, the customer must deliver a minimum of $132-million in DS3 billing, with the discounts maxing out at $137-million in billing. Using the examples in the tariff, the total incentive discount available for non-DS3 services (based upon annual billing of $340-million) is 2.7%. The incentive discount for the Product Suite, assuming delivery of the $135.5-million in DS3 billing used in the tariff example, works out to 5.4%. Combined, the "Product Suite" and Annual incentives available for DS3 services is equal to 8.1%. Compare this to the 10% and 13% increases in the prices for DS3 month to month channel terminals, or the 71% increase in the secondary channel termination rate in the Verizon South Phase II MSAs, and the discount offered through the Contract Tariff is less than overwhelming.

Table 5

Derivation of Credit Percentages from Contract Tariff Option 1 in Verizon Access Tariffs FCC 1, FCC 11 and FCC 14

	Annual Incentive Component				
					Year 1 credits
(a)	Total Revenues in Tariff example	$ 340,000,000			
(b)	Fixed Incentive Year 1	$ 3,800,000	$ 3,800,000		
(c)	Tier 1 Discount (applies on $301 to $325 million)	10%	$ 2,400,000		
(d)	Tier 2 Discount (applies on $s above $325-million)	20%	$ 3,000,000		
(e)	Total Annual Incentive Credit				$ 9,200,000
(f)	Annual Incentive Credit as % of Billing	2.7%			
	Product Suite Incentive				
	Total Revenues in Tariff example	$ 135,500,000			
	Level 6 (product suite billing >$137-mil)	100% of annual incentive			
	Level 5 (product suite billing between $136- and 137-mil)	90% of annual incentive			
	Level 4 (product suite billing between $135- and 136-mil)	80% of annual incentive	$ 7,360,000		
	Total Product Suite Incentive Credit				$ 7,360,000
	Product Suite Incentive Credit as % of Product Suite Billing	5.4%			
	Total Incentive % on DS3 Product Suite	8.1%			
	Total Incentive % on other Special Access Products	2.7%			

Source: Verizon FCC # 1, Section 21, pages 21-12 - 21-14, Verizon FCC #11, Section 32, pages 32-11 - 32-13, and Verizon FCC # 14, Section 21, pages 21-11 - 21-13.

14. Despite their professed interest in engaging in Contract Tariffs as a specific response to the competition that they purport to confront, the other RBOCs also entered into only a handful of Contract Tariffs during 2002. Contract Tariffs in the SBC companies (Southwestern Bell, Pacific Bell, Ameritech and SNET combined) at first glance appear to be somewhat more prevalent. Across the entire territory, ten different Contract Tariffs have been filed, nine of which were filed in 2002. However, of those nine 2002 Contract Tariffs, six are essentially term plans for multiplexed DS-0 to DS-1 interoffice transport, and offer no pricing concessions for anything else.[12] Similarly, BellSouth has only tariffed ten custom contracts, half of which were executed during 2002.[13] As of the date of this declaration, Qwest had not executed any Special Access Contract Tariffs.[14]

15. Many of the Contract Tariffs that have been filed are restricted to limited geographic areas. Thus, despite the existence of Contract Tariffs, there are MSAs where Phase II pricing flexibility has been granted but where no services are currently being provided or offered pursuant to a Contract Tariff. As an example, a review of the ten Contract Tariffs filed by BellSouth reveals that although full Phase II pricing flexibility has been granted in the Columbia, SC, Evansville, KY, Owensboro, KY and Lafayette, LA MSAs, not one of BellSouth's Contract Tariffs offers contract based pricing in those MSAs. One of the other contracts applies in only eight of BellSouth's thirty Phase II pricing flexibility MSAs, while another is limited to eleven, and a third to eighteen out of the full thirty.

12. SWBT Tariff FCC No. 73 - Section 41, Ameritech Tariff FCC No. 2, Section 22 and Pacific Bell Tariff FCC No. 1, Section 33.

13. BellSouth Tariff FCC No. 1, Section 25.

14. Qwest Tariff FCC No. 1, Section 24.

Table 6

BellSouth MSAs in which Full Service (Phase II) Relief has been granted that are **excluded** from BellSouth Contract Tariffs.

Contract Tariff #	**BellSouth MSAs**
1	Evansville, KY, Owensboro, KY, Lafayette, LA, Columbia, SC
2	Evansville, KY, Owensboro, KY, Lafayette, LA, Columbia, SC
3	Montgomery, AL, Jacksonville, FL, Pensacola, FL, West Palm Beach, FL, Savannah, GA, Evansville, KY, Louisville, KY, Owensboro, KY, Baton Rouge, LA, Lafayette, LA, Lake Charles, LA, Monroe, LA, Shreveport, LA, Biloxi, MS, Jackson, MS, Chatanooga, TN, Knoxvilee, TN, Nashville, TN, Columbia, SC
4	Evansville, KY, Owensboro, KY, Lafayette, LA, and Columbia,SC
5	Evansville, KY, Owensboro, KY, Lafayette, LA, and Columbia,SC
6	Evansville, KY, Owensboro, KY, Lafayette, LA, Lake Charles, LA, and Columbia,S
7	Evansville, KY, Owensboro, KY, Lafayette, LA, and Columbia,SC
8	Montgomery, Al, Daytona Beach, FL, Gainesville, FL, Jacksonville, FL, Melbourne, FL, Miami, FL, Orlando, FL, West Palm Beach, FL, Atlanta, GA, Savannah, GA, Evansville, KY, Louisville, KY, Owensboro, KY, Lafayette, LA, Charlotte, NC, Greensboro, NC, Raleigh-Durham, NC, Wilmington, NC, Chattanooga, TN, Knoxville, TN, Memphis, TN, Columbia, SC
9	Pensacola, FL, Savannah, GA, Evansville, KY, Owensboro, KY, Baton Rouge, LA, Lafayette, LA, Lake Charles, LA, Monroe, LA, Shreveport, LA, Jackson, MS, Columbia, SC
10	Evansville, KY, Owensboro, KY, Lafayette, LA, Columbia, SC

Source: Bell South Telecommunications, Tariff FCC No. 1, Section 25 - Contract Tariffs.

2. FACILITIES-BASED COMPETITION IS STILL EXTREMELY LIMITED, EVEN IN PHASE II PRICING FLEXIBILITY MSAs.

Competitively provided special access facilities are only available at an extremely small number of commercial buildings, forcing IXCs to acquire the vast majority of these services from the ILEC.

16. Special access services consist of three principal elements — the loop facility connecting the customer's premises with the serving wire center ("Channel Termination"), Interoffice Transport links interconnecting two or more wire centers, and entrance facilities. While the Commission's Phase II Pricing Flexibility requirements are driven primarily by the presence of CLEC/CAP collocation arrangements in ILEC central offices,[15] in practice such collocation may possibly affect the ability of a CLEC/CAP to compete with the ILEC for Interoffice Transport, but *not* its ability to provide the special access link to the customer's premises. Indeed, RBOCs fail to provide any evidence of competitive facilities being used to displace either interoffice transport in the RBOC network or channel terminations to end user premises. Accordingly, even if the presence of multiple collocation arrangements were by itself sufficient to establish the presence of effective competition for *interoffice transport* — which in many cases it is not — the presence of such collocation does not facilitate or support competition with respect to "last mile" channel terminations to individual customer premises, the market for which with few exceptions remains the near-exclusive domain of the incumbent LECs.

17. In order to compete without the use of any ILEC special access service, a CLEC/CAP must either deploy its own facilities between the customer's premises and the CLEC's central office, or acquire them from another CLEC/CAP, if available. Absent that, the fact that the CLEC/CAP may have a collocation presence in the ILEC wire center serving the customer will not enable it to bypass ILEC special access channel termination service. If the CLEC wants to

15. *Pricing Flexibility Order*, 14 FCC Rcd 14221, 14261-14262.

offer competitive transport facilities to customers in buildings that are not served by its own or by another CLEC's subscriber facilities, the *only* means by which it can interconnect its competitive transport facilities with its customer is via ILEC-provided special access.

18. ILECs own subscriber access line facilities connecting some 3- to 4-million commercial buildings nationwide.[16] AT&T currently provides service at approximately 186,000 commercial buildings.[17] Of these, AT&T *owns* facilities to only about 6,700 buildings, and obtains facilities *from other CLECs* at approximately 3,300 additional locations.[18] Thus, competitive alternatives to ILEC special access service are available at only about 10,000 locations, representing roughly 5.7% of the approximately 186,000 commercial buildings at which AT&T currently provides service, and at less than 0.4% of the 3- to 4-million commercial buildings nationwide.

19. The availability of competitive alternatives to ILEC special access in MSAs subject to Phase II pricing flexibility is not appreciably greater. AT&T currently serves 38,477 buildings

16. This does not necessarily mean that the potential market for special access-like facilities consists of all commercial buildings. On the other hand, it clearly consists of more buildings than merely those that are currently receiving service.

17. LNS Building Data Warehouse, http://scot.als.att.com/scot/, accessed January 22, 2003 and LNS Building Inventory, AT&T Proprietary Database, accessed January 10, 2003.

18. *Id.*

in the Full Coverage Phase II MSAs,[19] and owns or has access to other CLEC-owned facilities in only about 2,375 of these[20] (see Table below), about 6% overall.

Table 7

Competitive Alternatives to ILEC Special Access are Minnimally Available Even in MSAs with Phase II Pricing Flexibility

Type of Pricing Flexibility	TOTAL AT&T - served buildings	AT&T	Other CLECs	ILECs
Full Coverage Under Phase II	38,477	1,661	714	36,102
		4.32%	1.86%	93.83%
Limited Coverage Under Phase II	94,202	4176	1,893	88,133
		4.43%	2.01%	93.56%
No pricing flexibility	53,456	890	682	51,884
		1.66%	1.28%	97.06%
TOTALS	**186,135**	**6,727**	**3,289**	**176,119**
		3.61%	**1.77%**	**94.62%**

Sources: See footnote 19.

19. Southwestern Bell Telephone Company, Tariff FCC No. 73, Section 39.2(A) and (B), 1st Revised Page 39-3, Effective: June 18, 2002; Qwest Corporation, Tariff FCC No. 1, Section 23, Original Page 23-0 - Original Page 23-28, Effective: June 15, 2002; The Verizon Telephone Companies, Tariff FCC No. 1, Section 14.7, Original Page 14-44 - Original Page 14-61, Effective: July 3, 2001; The Verizon Telephone Companies, Tariff FCC No. 11, Section 15.3, Original Page 15-19 - Original Page 15-34, Effective: July 3, 2001; Verizon Telephone Companies, Tariff FCC No. 14, Section 19.1, Original Page 19-1 - 3rd Revised Page 19-37, Effective: May 2, 2001 through June 1, 2002; The Southern New England Telephone Company, Tariff FCC NO. 39, Section 24.2(A) and (B), Original Page 24-2, Effective: June 18, 2002; Ameritech Operating Companies, Tariff FCC No. 2, Section 21.2 (A) and (B), 1st Revised Page 689, Effective June 18, 2002; Pacific Bell Telephone Company, Tariff FCC No. 1, Section 31.2(A) and (B), 3rd Revised Page 31-3, Effective: July 2, 2002.

20. *Id.*

20. Even in MSAs with the largest CLEC presence, CLECs must rely upon ILEC-provided special access services for the majority of their customer connections. Consider, for example, the following statistics for the New York, Boston, Chicago and Los Angeles areas:

Table 8

Competitive Alternatives to ILEC Special Access are Minimally Available Even In Areas with the Largest CLEC Presence

MSA	AT&T Share	Other CLEC Share	ILEC Special Share
New York	12.6%	1.5%	85.9%
Boston	11.8%	1.7%	86.5%
Chicago	4.6%	1.4%	94.0%
Los Angeles	3.5%	1.1%	95.4%

Even in the most competitive area in the US, New York, no AT&T or other CLEC facilities are available at 85.9% of those locations. A similar pattern is evident in each of the other three large markets. Moreover, it would be incorrect to interpret these aggregate MSA-wide figures as suggesting that the distribution of AT&T- and CLEC-owned facilities is anything close to homogeneous within each of these MSAs. The principal location of AT&T- or CLEC-owned facilities is generally limited to the central business district and to a few other isolated locations. It is also noteworthy that there are large areas in which there are *no* AT&T-connected customer locations at all; in these locations, the ILEC remains the sole support of local telecommunications services. The extremely limited availability and non-homogeneous distribution of non-ILEC facilities, even in MSAs with the greatest competitive presence, underscores the conclusion that the MSA is simply too large an area within which to assess the ability and opportunity for CLECs to compete for special access services. And except in those specific locations where CLEC-provided special access facilities are in place, the ILEC maintains its unchallenged monopoly and market power.

21. Both BellSouth and Verizon have attempted to misdirect the Commission away from this indisputable reality by introducing theoretical "studies" and other evidence that purports to show a substantially greater amount of facilities-based CLEC activity than is actually present. These RBOC "studies" and their portrayals of an intensely competitive facilities-based market are so fatally flawed that they must be dismissed as entirely meritless.

BellSouth's Eastern Management Group "study" rests entirely upon unsupported and patently false assumptions and assertions of "fact"

22. BellSouth has attempted to dismiss these empirical realities by offering an entirely theoretical "study" penned by the Eastern Management Group ("EMG") that purports to "derive the likelihood that Special-Access type facilities will be available in BellSouth's territory."[21] The EMG paper appears to be premised upon the notion that "the likelihood of the presence of such [collocated CLEC] facilities in a wire center indicates the availability of alternatives to Bell-South Special Access."[22] I disagree. What "indicates the availability of alternatives to BellSouth Special Access" is the *actual presence* of alternative facilities in a wire center, not some theoretical calculation of "likelihood" that is itself premised upon entirely unsupported assumptions that are simply wrong as a matter of fact.

23. Not surprisingly, of course, EMG's calculation of theoretical "likelihood" is driven entirely by an *assumption* of actual presence of CLEC-owned facilities in each wire center. EMG contends that, on average, *each collocated CLEC individually owns special access type facilities connected to 30.9% of the buildings served by that wire center*:

> The probability of an IXC being able to purchase special access from a collocated CLEC is simply (1 — probability that no collocated CLEC is willing to

21. Comments of BellSouth, Exhibit 2 ("EMG Report"), at 7.

22. *Id.*, at 7.

> participate in the sale). *The likelihood that a CLEC is willing to participate in a special access sale is estimated by the fraction of its connected buildings that are on-net as opposed to being on-switch or total service resale.* (We assume normal business behavior, that is, that the CLECs will want to maximize the use of their network facilities.) *We estimate this likelihood to be 30.9% across BellSouth's territory.* Therefore if there are 2 collocated CLECs, the probability of the special access sale is $1 - (1-0.309)^2 = 0.52$.[23]

EMG's 30.9% figure purports to represent the proportion of only those buildings in which CLECs have customers where CLEC-owned facilities (designated as "on net") are present ("the fraction of its connected buildings that are on-net as opposed to being on-switch or total service resale"). Although the 30.9% figure is characterized as an "average," EMG's specific use of it assumes that *exactly* 30.9% applies to *each* collocated CLEC in *each* BellSouth wire center in which such collocation is present. Moreover, EMG's exponential calculation *requires* that, for each CLEC, the "on net" (vs. ILEC Special Access-served) buildings are randomly distributed among all buildings served by the wire center. *Not only does EMG offer no support for any of these assumptions, they are undoubtedly not even remotely close to reality*.

24. Even if all of EMG's purported "facts" and "assumptions" were accurate — which they are not — its use of the proportion of CLEC on-net buildings to total CLEC-connected buildings teaches nothing about the likelihood that a *new* customer not located in a building that has any CLEC presence can be served by means of a competitive alternative to ILEC Special Access. The appropriate driver for this "likelihood" analysis is necessarily the proportion of CLEC "on net" buildings to *all buildings served by the ILEC wire center*, whether or not any existing customer therein takes service that is provided by a CLEC. Using AT&T's statistics for purposes of illustration (i.e., 186,000 out of 3- to 4-million commercial buildings) and accepting EMG's 30.9% "on net" proportion, the proportion of CLEC on-net buildings to total commercial

23. *Id.*, at 9, emphasis supplied, footnotes omitted.

buildings would translate to 30.9% of the 5% to 6% of all commercial buildings in which any CLEC connection exists, i.e., roughly 1.5% to 1.8% overall.

25. It is also extremely unlikely that the incidence of CLEC "on net" buildings is randomly distributed among all CLECs with a collocation presence in a given wire center, as EMG has assumed. In fact, it is far more likely that many of the same buildings are being served by more than one CLEC. In that case, EMG's exponential calculation would materially overstate the "likelihood" that an IXC could obtain special access type services from at least one CLEC. Indeed, at the opposite extreme, if *all* collocated CLECs served exactly the same buildings, then the presence of more than one CLEC in a wire center would not increase the likelihood above the single-CLEC level, i.e., 30.9% under EMG's assumption, or in the 0.4% range based upon the proportion of CLEC on-net buildings vs. all commercial buildings served by the wire center.

26. The EMG analysis thus rests upon numerous unsupported and grossly unrealistic assumptions, and so teaches nothing whatsoever as to the "likelihood" that CLEC-owned facilities will be available to serve a given customer premises. Nevertheless, I have attempted to replicate EMG's calculations using more realistic assumptions, and, when this is done, the results are dramatically different.

27. EMG's Table 3 presents what EMG seeks to portray as the "probability of CLEC availability for wholesale special access to IXC." I have recast EMG's Table 3 using (a) the percentage of the 186,000 AT&T customer locations at which AT&T-owned on-net special access facilities are available (3.23%) as an estimate of the average percentage of a given CLEC's customer locations that are served by that CLEC's own facilities, and (b) the percentage of total commercial buildings at which AT&T-owned facilities are available (0.2%) as an estimate of the average percentage of all commercial buildings served by a given wire center that are served by that CLEC's own facilities:

Table 9 Recast of EMG Table 3: Probability of CLEC availability for wholesale SA to IXC (based on percentage of AT&T customer locations at which AT&T-owned facilities are available)					
	Number of CLECs at wire center				
	0	1	2	>3 (11)	BST Average
Probability	0	0.0323	0.0636	0.3031	0.1579

Table 10 Recast of EMG Table 3: Probability of CLEC availability for wholesale SA to IXC (based on percentage of all commercial buildings served by the wire center at which facilities owned by any single CLEC are available)					
	Number of CLECs at wire center				
	0	1	2	>3 (11)	BST Average
Probability	0	0.0020	0.0040	0.0218	0.0123

As Table 10 demonstrates, when the more realistic and more appropriate measure of CLEC on-net facilities is utilized — i.e., CLEC-served buildings as a percentage of *all* commercial buildings served by the wire center — the "likelihood that [competitive] Special-Access type facilities will be available" to serve any potential CLEC customer is only about 1.23%, a far cry from the patently absurd 75.9% figure posited by EMG.

28. Even this corrected "analysis" does not provide a fully accurate assessment, in that it still assumes a random distribution of on-net buildings for each CLEC and further assumes that the AT&T-average applies in each and every wire center and for each and every CLEC collo-

cated therein. On the one hand, there is a greater likelihood that a randomly arriving customer will want service at a building at which CLEC facilities are in place than at a random building among all of those served by the wire center; in that event, the 1.23% result would tend to understate actual conditions. On the other hand, it is also likely that the number of buildings being served by AT&T nationwide — 6,700 — is far larger than for most other CLECs, so if the actual distribution of CLEC on-net buildings were substituted for an "average" based solely upon the AT&T figure that I have used here, the result would be significantly overstated. I do not present this "corrected" version of the EMG "analysis" for the purpose of providing any specific "likelihood" estimate, but rather for the purpose of demonstrating the fatal flaws in EMG's methodology and the sheer absurdity of its results. I believe that it is most likely that the probability of some CLEC-provided alternative to ILEC special access being available for any given customer in any given building is somewhere in the range of the results presented on Tables 9 and 10 above, i.e., somewhere between 1.23% and 15.79%, but probably a lot closer to the lower than to the upper end of this range.

29. Additionally, as Professors Ordover and Willig correctly observe, the presence of CLEC-owned channel termination facilities is greatest where extremely high-capacity demand, at the OCn level, is present, and virtually nonexistent where all that is required at a particular customer site is capacity at the single DS-3 level or below.[24] The EMG "study" implicitly assumes a uniform distribution of CLEC-served buildings across all capacity levels. Consequently, since the vast majority of individual special access type connections are at or below the DS-3 level — and a substantial majority at or below the DS-1 level[25] — there is no basis to infer

24. Ordover/Willig Reply Decl., at paras. 28-30.

25. For example, Ameritech's most recent annual access filing with the Commission (using 2001 actual demand data, at the special access rates effective July 2002, projects $601.9-million total access revenue, with $363.4-million categorized as DS-1, more than 60% of total revenues, plus another 101-million for DDS and other digital lines, which brings the cumulative percentage (continued...)

anything from EMG's results — even if otherwise accurate on an aggregate, market-wide basis — as to the likelihood of a CLEC facilities presence in buildings where only minimal dedicated special access capacity is required.

Verizon's *Competition for Special Access Services* report provides a false and entirely misleading assessment of the actual state of competition for special access services

30. Verizon has also provided a grossly exaggerated picture of facilities-based special access competition through its "Competition for Special Access Services" report.[26] Several of the report's claims raise theoretical rather than factual matters addressing competition and are being addressed elsewhere in AT&T's Reply Comments.[27] For example, AT&T's comments point out that Verizon's comparisons of "voice grade equivalent" lines reflect very high-capacity links of various types rather than the scope of the availability of competitive alternatives; that Verizon's listings of cities with CLEC "networks" indicate very little or nothing about the presence of CLEC "on net" buildings, if any, in a served MSA; and that Verizon's claims regarding CLEC resale of ILEC special access services simply confirm that CLEC facilities that compete with ILEC facilities are very limited in scope and, with respect to Verizon's comparison of special access resale to UNE resale, that the UNE use restrictions are unduly constraining.[28]

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25. (...continued)
up to 77%. In addition, Ameritech's filing identifies $122.9-million as revenues for DS-3 circuits. There is no separate break-out for OCn, but even if half of the anticipated DS-3 revenues were from associated with OCn-level circuits, the total percentage of revenues from circuits at or below DS-3 levels would be 87%.

26. See *In the Matter of AT&T Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM 10593, *Verizon Report on Competition for Special Access Services*, filed Dec. 2, 2002 ("Verizon Report").

27. *See* AT&T Reply Comments, *supra* at 10-19.

28. *See* Verizon Report, at 12-13, 21-23, 26.

Verizon's Report Generally Fails to Distinguish Between the Hype of the Hi-Tech Bubble Era and Current, Actual Special Access Competitive Conditions.

31. Verizon's claims of special access competition are outdated. They are based on a time when massive CLEC growth was presumed, where plans were as good as implemented, and where press releases and analyst statements were presumed accurate and reliable. Of course, this era ended some time ago, and nowhere was this felt more acutely than the CLEC sector under consideration. Verizon's attempts to belatedly tap into the hype of 2000 provide no basis for judging competitive conditions in today's market.

32. The financial health of CLECs is nowhere near what it was a couple of years ago. Most large special access providers face the bankruptcy and its crippling effect on investor confidence and the CLECs' credit. For all but a few competitors, capital markets will hardly support current operations, much less expansive "plans" relied on by Verizon.

33. The bubble-era hype infuses the Verizon report. For crucial evidence regarding the availability of local fiber, Verizon relies upon announcements of "planned" or "intended" network rollout announced in 2000 and 2001.[29] It cites Jack Grubman, to establish the robustness of the now-crippled "wholesale fiber" sector.[30] It credits as meaningful the announcement of a "40.8 million round of equity financing" as proof that the capital markets have not all but closed for many CLECs in this sector.[31] Verizon points to a "web-based trading pit for metropolitan fiber" as support for its assertions regarding the robustness and scope of fiber wholesalers — but

29. *Id*. at 17, Table 6 (citing AFS "plans to install" additional fiber, Fiber Technologies "planned network infrastructure"); *id*. at 20, Table 7 (stating that El Paso Global Network "plans to spend $2 billion over the next four years on a nationwide fiberoptic network and 'plans to overbuild its metropolitan areas to provide better connectivity'").

30. *Id*. at 15, fn.70.

31. *See* Verizon Report at 16, Table 6 (citing a $40.8 million round of equity financing for Yipes Communications).

that web site has discontinued its locator services and contains no postings for the sale of undeployed fiber.[32] And throughout its "analysis," Verizon relies upon sources published by the New Paradigm Resources Group, which takes a naively uncritical view of the CLECs' condition as it discharges its role as cheerleader for this beleaguered industry sector. New Paradigm twists financial reality by proposing that bankruptcy is somehow just a normal business condition that, fortuitously, has the advantage of reducing interest expenses.[33]

34. In fact, bankruptcy is a severe impediment to competition and one that infuses the sector, limiting current service provision and having even more significant consequences for ongoing competition. As AT&T has shown and certainly not surprisingly, major IXC customers cannot contract confidently with special access providers in bankruptcy — in large part because their end user customers quite sensibly will not tolerate such arrangements.[34] Bankruptcy is particularly debilitating in a capital intensive industry, where credit-worthiness is, by definition, of paramount importance in raising the funds necessary to support continued operations (for cash flow-negative suppliers), to enable capital expenditures necessary to continue to provide service to current customers, and to undertake network expansion.

35. The roll call of bankrupt suppliers of special access services continues and includes some of the most significant providers. In the first nine months of 2002, newly bankrupt providers include[35]:

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32. *See* www.fiberloops.com/Fiberloops/posts.htm.

33. New Paradigm Resources Group, Inc., *CLEC Report 2003*, Chapter 2 at 2 (17th ed. 2003) ("Chapter 11 Bankruptcy: A Hindrance or A Benefit?") ("CLEC Report 17th ed.").

34. *See In the Matter of AT&T Petition for Rulemaking to Reform Regulation of Incumbent Local Exchange Carrier Rates for Special Access Services*, RM No. 10593, Declaration of Kenneth Thomas on Behalf of AT&T at para. 9-10, Filed October 15, 2002 ("Thomas Decl.").

35. *See* CLEC Report 17th ed., at Ch. 2, Table 1.

Knology Broadband	09/18/02
Birch Telecom	07/30/02
WorldCom	07/21/02
ITC^DeltaCom	06/25/02
XO Communications	06/16/02
Advanced TelCom Group	05/02/02
Mpower Communications Corp.	04/08/02
Adelphia Business Solutions	03/27/02
Yipes Communications	03/21/02
Western Integrated Networks	03/13/02
Logix Communications	02/28/02
Network Plus Corp.	02/04/02
McLeod USA	01/31/02
Global Crossing Ltd.	01/28/02

36. Of the sixteen major providers of special access services identified by Verizon,[36] six are in bankruptcy, while a seventh is just now emerging from bankruptcy protection. Six of these bankrupt providers fall within the top 9, in terms of their special access revenues. The table below reproduces Verizon's presentation of major special access competitors to the ILECs, with shading indicating those that have declared bankruptcy:[37]

36. *See* Verizon Report, at 9, Table 4.

37. *See* CLEC Report 17th ed., at Ch. 2, pp. 2-4.

Table 11

Major Competitive Providers of Special Access

Company	Special Access Revenue (2001 in millions)	Company	Special Access Revenue (2001 in millions)
AT&T	$2,880	McLeod USA	$91
World Com	$2,207	KMC Telecom	$90
Qwest	$380	General Comm., Inc.	$71
Time Warner	$384	Adelphia Bus. Solutions	$62
XO Communications	$378	BTI Telecom	$48
IDT/WinStar	$190	NTS Communications	$45
ICG Communications	$165	Cablevision Lightpath	$28
ITC^DeltaCom	$96	Cox Communications	$21

37. Apart from the implications of bankruptcies, the publicly released information regarding the networks, services and revenues of many of the largest special access providers should be regarded as overstated through undue optimism (if not outright misrepresentation). Major special access providers that are expected to restate their financial information and related service claims include WorldCom, Qwest, and Adelphia Business. The example of Winstar is instructive in assessing Verizon's current claims. Of the more than $900-million in CLEC revenue that Winstar had claimed when it was acquired by IDT, IDT discovered that nearly $750-million reflected fiber swaps that were irrelevant to CLEC competition.[38] Despite its earlier uncritical analyses, New Paradigm now estimates that $120-million of the asserted Winstar revenue was derived from resale of ILEC services, indicating that only slightly less than 9% — or about $80-million — of Winstar's claimed $900-million in revenue resulted from services provided over its own facilities.[39] This example accords with AT&T's conclusion that

38. *See* New Paradigm Resources Group, Inc., *CLEC Report 2002*, Carrier Profile of Winstar Communications at 2 (16th ed. 2002) ("CLEC Report 16th ed.").

39. *Id*.

CLEC assertions regarding on-net buildings have often proved overstated, with unexpected and undisclosed reliance upon resale of ILEC special access services.[40]

Verizon Overestimates CLEC Revenues and Market Share.

38. Verizon attempts to portray the CLECs as vigorous competitors in special access markets based upon claims that CLEC revenues represent approximately $10-billion out of a $28-billion market, with consistent growth, and that particular CLECs have robust special access revenues.[41] Even if true, these claims would not support the assertion that relevant markets are competitive. Indeed, they would be entirely consistent with the highly segmented competitive markets that AT&T has documented.[42] Multiple providers of special access services may deploy facilities in a few areas where customers are highly concentrated (indeed, have dramatically overbuilt in those areas), but competitive alternatives do not extend to most buildings or to most users even within relatively competitive MSAs, and the expansion of facilities-based competition appears to have stalled because the overwhelming majority of buildings cannot be served economically by a CLEC. In sum, certain high-volume customers may have competitive alternatives in a limited number of locations, but most do not even in areas subject to Phase II relief.[43]

39. In fact, Verizon's portrayal of CLEC revenues, growth, and market share — even using the sources Verizon relies upon — is inaccurate, lacks analytical integrity and conceals a deeply troubled service sector that has largely stalled. First, while Verizon repeatedly suggests that the

40. Thomas Decl., at para. 8.

41. *See* Verizon Report, at 2, 27, and Table 4.

42. *See* AT&T Reply Comments, at 10-19.

43. *See, e.g., Comments of the Ad Hoc Telecommunications Users Committee*, at 3-4.

CLECs' special access revenue continues on a robust growth trajectory,[44] the New Paradigm research group now anticipates flat revenues for the sector — even with the current customer base experiencing steady growth in use of services. New Paradigm as recently as 2002 had projected that CLEC dedicated access and private line revenues would increase by 61% from 2001 to 2005.[45] More recently, New Paradigm has lowered these predictions and now estimates only 11.6% total growth from 2002 to 2006 — less than a 2.8% increase annually.[46]

40. Second, Verizon's overstated claims collapse when it attempts to use FCC-sourced information. Verizon asserts that the CLECs have revenue share of approximately 30% based upon 2000 figures of $4.2-billion of FCC-reported revenue, supplemented by self-supply of $1.3-billion in 2001, compared to ILEC special access revenues of $13-billion in 2000.[47] This analysis contains three flaws: (1) it excludes non-RBOC ILEC revenues (amounting to $1.1-billion, or 8.1%, of ILEC local private line and special access revenues);[48] (2) it compares the 2001 self-supply revenues of competitive carriers with the 2000 RBOC numbers, deflating the RBOC number by $5-billion on Verizon's own calculation;[49] and (3) it includes revenues in the relatively more contested and irrelevant long distance private line services market ($985-million, or 23%, of CLEC revenues but only 7.5% of ILEC revenues).[50] Even using Verizon's sources

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44. *See* Verizon Report at 27. Verizon also makes projections for the value of self-supply access for AT&T and WorldCom based upon the increase from 1998 to 1999. *Id.* at 28.

45. *See* CLEC Report 16th ed. at Ch. 3, Table 13.

46. *See* CLEC Report 17th ed. at Ch. 3, Table 9.

47. Verizon Report, at 28.

48. *See* FCC, Industry Analysis Div., *Telecommunications Industry Revenue 2000*, at 13 & 17 (Jan. 2002).

49. Verizon Report, at 28.

50. FCC, Industry Analysis Div., *Telecommunications Industry Revenue 2000*, at 13-14, 17-

and growth assumptions and adjusting for these three factors, the 2001 CLEC share of the local access and private line market is 22%.[51]

41. Third, the component revenues that Verizon relies on to come up with the supposed $10-billion special access revenue total for CLEC services are plainly exaggerated. Verizon's Table 4 purports to capture the special access revenues of CLECs that provide more than $20-million of services, but the basis for this calculation fails to withstand scrutiny. The flaws in this table include:

- Even if taken at face value, the figures as presented by Verizon sum to less than $7.24-billion in CLEC special access revenues.

- AT&T's 2001 special access revenue is presented as $2.88-billion, but New Paradigm now estimates that figure to be $2.38 billion.[52]

50. (...continued)
18.

51. ILEC 2000 revenues for local private line and special access services, derived from the same FCC tables that Verizon uses, are $13.5 billion. FCC, Industry Analysis Div., *Telecommunications Industry Revenue 2000*, at 13 & 17. For 2001, using Verizon's ILEC revenue growth assumption (Verizon Competition Statement, at 27), indicates ILEC 2001 special access revenues of $18.6 billion. FCC tables indicate $3.22 billion of CLEC local private line and special access revenue in 2000, FCC Industry Analysis Div., Telecommunications Revenue 2000, at 14 & 18, which, using the New Paradigm Resources Group estimate of the growth rate in CLEC special access revenues from 2000 to 2001 (17.9%), increases those revenues to $3.8 billion for 2001. Adding Verizon's aggressive estimate of $1.3 billion of "self-supply" by AT&T and MCI brings the 2001 CLEC total to $5.1 billion. 5.1/(5.1 + 18.6) = .22.

52. *Id*., AT&T carrier profile at 1, 6 (estimating that dedicated access/transport – the source Verizon employs for its special access revenue calculations – accounted for 18% of total revenues, which were $13.2 billion).

- WorldCom's 2001 special access revenue is presented as $2.207-billion, but New Paradigm now estimates that figure to be $1.62-billion.[53] Even that reduced figure appears to include WorldCom's international revenues.

- The Qwest figure of $480-million apparently includes special access revenues derived from provision of certain special access services within Qwest's incumbent region, as well as international revenues.[54] The Qwest figures, in any event, predate Qwest's massive downward revisions of revenues and, given Qwest's ownership structure, would be questionable evidence of true competition between ILECs and CLECs.

- IDT/Winstar's special access revenues are presented as $190-million. New Paradigm estimates that the company's special access revenues for 2002 were only $24-million.[55]

- ICG Communications' special access revenues are presented as $165-million. New Paradigm estimates that the company's special access revenues for 2002 were $133-million.[56]

53. *Id.*, WorldCom carrier profile at 1, 5 (estimating that dedicated access/transport accounted for 14 % of total revenues, which were $11.6 billion).

54. *Id.*, Qwest carrier profile at 3 (describing Qwest's strategy to market services in the 14-state region previously served by U.S. West, with whom Qwest merged in 2000).

55. *Id.*, Winstar carrier profile at 1, 5 (estimating that dedicated access/transport accounted for 20% of IDT/Winstar's total revenues, which were $120 million).

56. *Id.*, ICG Communications carrier profile at 1, 5 (estimating that dedicated access/transport accounted for 29% of total revenues, which were $460,000).

- McLeod USA is presented as having $91-million in special access revenues. New Paradigm estimates that the company's special access revenues for 2002 were $77-million.[57]

- As noted above, the relevant market concerns local special access and private line, which requires reduction of the resulting figures by, in aggregate, 23% (the portion of CLEC special access revenues attributable to interstate private line services).

Making these adjustment, based upon Verizon's own source, reduces the overall CLEC special access revenues to $4.6-billion, or $4.2 billion if Qwest is excluded altogether.[58] That's less than half the $10-billion figure being touted by Verizon.

42. Finally, and of particular importance for assessing the extent of facilities-based competitive alternatives, much of the CLEC revenues reflect *resold* ILEC special access facilities. Verizon confirms that BOCs provide approximately 56% of their special access lines (by voice grade equivalent) to competing carriers,[59] and Verizon credits these lines as ones that are included in the CLEC numbers of voice grade equivalent lines served. Verizon derives this figure from the ratio of revenues the BOCs receive from end users as opposed to competing carriers. While Verizon likely overestimates the percentage of its resold lines that are employed as CLEC-served lines (rather than being used for upstream services), even if one assumes a somewhat reduced percentage, the implications are clear: CLEC revenues for special access services provided on a facilities basis ("on net) —— which are the only relevant revenues for

57. *Id.*, McLeod carrier profile, at 6 (estimating that dedicated access/transport accounted for 7 percent of total revenues, which were $1.1 billion).

58. These figures were arrived at by substituting the updated revenue amounts in Verizon's Table 4 (CLEC Special Access Revenues) and then subtracting 23% of that total.

59. *See* Verizon Report, at 24.

purposes of judging facilities-based competition — are much lower than the total revenues they report, because of the high portion of special access they provide over resold RBOC lines. Fifty-six percent of 2001 RBOC special access revenues (estimated by Verizon to total $18-billion) amounts to $10-billion — nearly all of CLEC special access revenues based upon even the most aggressive assessments used by Verizon and the New Paradigm Resources Group. Deductions from the $10-billion figure due to resale for upstream services would be at least in part offset by the margin that CLECs would need to add to the ILEC special access services that they resell. Whatever reasonable assumptions are used, the overwhelming majority of CLEC special access revenues are attributable to resold ILEC services rather than to facilities-based special access services. And that much smaller figure attributed to "on net" revenues is dwarfed by the $28-billion that Verizon estimates for the entire special access market.

Verizon Fails to Show that CLECs Can Economically Connect to More Than a Small Percentage of Buildings.

43. As I have noted above, CLEC facilities reach only a minute fraction of all commercial buildings in the US. Of greatest importance to the touchstone competition inquiry, the "availability of competitive alternatives," only a small percentage of buildings are or can be connected economically through "on-net" services provided exclusively over non-ILEC facilities.[60] Consequently, and as AT&T has explained before, competitive providers of special access services can economically reach only a small fraction of the commercial buildings that hold potential customers.[61]

60. *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-339, Declaration of Michael E. Lesher and Robert J. Frontera on Behalf of AT&T Corp., at paras. 41-42.

61. *See* Thomas Decl., at para. 12.

44. In large measure, Verizon accepts this crucial analysis. It credits an estimate that non-ILEC special access providers can provide on-net service to only approximately 30,000 commercial buildings nationwide,[62] which represents less than 1% of the total buildings served by ILECs.

45. At the same time, Verizon makes a series of marginal claims that attempt to blunt the force of this basic concession. First, Verizon indicates that the number of on-net buildings is "constantly increasing" and cites an AT&T statement that its local fiber network is growing.[63] While it is undoubtedly true that AT&T's connections are increasing, AT&T has also established that facilities-based special access competition is inherently limited to a small subset of highly concentrated, high-traffic customers.[64] More importantly, the number of on-net buildings of other important providers of special access services is not increasing: as service providers exit the business altogether or scale down operations as part of Chapter 11 proceedings, reduce their effective connections, or reveal that their "on net" building and network claims were in fact examples of irrationally exuberant overstatement.[65]

46. Verizon also claims that CLECs serve "approximately 330,000 buildings," while admitting that more than 90% of these buildings are served in part or whole through resale of ILEC special access facilities.[66] Even the larger figure provides no sound indication of competition even to that subset of buildings. Verizon relies upon a New Paradigm Resources Group report for its figure, but that report indicates that the two providers with the greatest

62. *See* Verizon Report, at 13.

63. *Id.*

64. *See* AT&T Reply Comments, at 11.

65. *See* discussion of Winstar, *supra* at para. 37.

66. *See* Verizon Report, at 13.

number of buildings served are Knology Broadband, with 149,950 buildings served,[67] and XO Communications, with 84,379 buildings served.[68] Both Knology and XO have in recent months entered bankruptcy.[69] New Paradigm now indicates that Knology has zero special access revenues, and in fact the "buildings" served apparently reflect residential cable TV and related retail services.[70] Despite its earlier estimates, New Paradigm now indicates that reliable information regarding XO's buildings connected is not available.[71]

47. Verizon also points to the concentration of special access customers, assessed by traffic and revenue, in relatively few buildings.[72] As a general proposition, and as compared to the total special access market, there are relatively few buildings where customers and demand are highly concentrated. Indeed, this is precisely the reason that the MSA-based exemption does not reflect competition because competitive alternatives remain unavailable in a large portion of the particular Phase II markets. Verizon's claims regarding the importance of just four MSAs (New York, San Francisco, Washington D.C., and Los Angeles) emphasize the difficulties of providing broadly available competitive alternative facilities and services in the many other MSAs where Phase II relief has been granted. Even so, the estimates of concentration that Verizon cites appear to be considerably exaggerated because they are limited to data traffic, which itself represents only a relatively small portion of the market.

67. *See* CLEC Report 16th ed., Knology carrier profile at 1.

68. *Id.*, XO carrier profile, at 1.

69. *See* CLEC Report 17th ed., Chapter 2 at Table 1.

70. *Id.*, Knology carrier profile, at 1-5.

71. *Id.*, XO carrier profile, at 1.

72. *See* Verizon Report, at 13-14.

48. The NYPSC's careful examinations of competitive facilities in the most highly concentrated market, New York City, shows the irrelevance of Verizon's emphasis upon concentration for showing that an overall MSA market is competitive. In concluding that Verizon remained dominant in the provision of special access services for all geographical areas in the state including Manhattan, the NYPSC concluded that Verizon's own data revealed that "a maximum of 900 buildings [are] served by individual competitors' fiber."[73] In contrast, New York City has more than 220,000 buildings that are "mixed use, commercial, industrial or public institutions."[74] Because CLEC fiber loops were irrelevant to actual provision of services unless joined by further facilities to particular buildings, the NYPSC report concluded that "Verizon represents a bottleneck to the development of a healthy market for Special Services" (equivalent to special access services).[75]

49. Finally, Verizon argues at length that evidence of collocation demonstrates the existence of special access competition and cites the Commission's reasoning that collocation is an accurate basis to predict the presence of competition throughout most of an MSA.[76] With all due respect, that issue is the one now challenged before the Commission by evidence that, notwithstanding collocation, competitive alternatives are not available in broad areas of the MSAs subject to Phase II relief.[77] Faced with that evidence, the Commission will need to address the scope of actual competitive alternatives, and neither the Commission nor Verizon can rely upon

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73. *See Proceeding on Motion of the Commission to Investigate Methods to Improve and Maintain High Quality Special Services Performance by Verizon New York, Inc., Opinion and Order Modifying Special Services Guidelines for Verizon New York Inc., Conforming Tariff, and Requiring Additional Performance Reporting*, NY PSC Case 00-C-2051, at 7-8 (June 15, 2001) ("NYPSC June Special Services Order").

74. *Id.*

75. *Id.*, at 9.

76. *See* Verizon Report, at 14.

77. *See* Tables 6 and 7 *supra*.

the "predictive judgment" that collocation serves as a proxy for relevant competition. And as I have previously noted and as AT&T has shown,[78] collocation is in any event a nearly irrelevant proxy for assessing the availability of facilities-based competitive alternatives to end users.

The Majority of Fiber Route Miles Operated by CLECs Are Long-Haul, Not Local.

50. Verizon claims that CLECs operate 184,000 route miles of fiber and that a majority of these miles are local, not long-haul.[79] Verizon does not provide numbers to back up its claim about the breakdown of these miles, nor does it explain how this conclusion was reached, other than to say that it is based upon public disclosures by the CLECs.[80] However, as Verizon itself acknowledges,[81] most CLEC's do not publicly report how many of the route miles they operate are purely local (as opposed to long-haul), so its assertion that a majority of these miles are local is highly speculative. Moreover, numbers provided by the few CLECs that do publish the break-down between local and long-haul miles undermine Verizon's claim. For instance, McLeod-USA, Inc., which operates a large CLEC networks, reports that only 5,000 of its 31,000 route miles of fiber are local, while the rest are long-haul.[82] XO Communications, a large CLEC, states that its intercity long-haul network consists of 16,000 route miles of fiber, while its metro

78. *See Implementation of the Local Competition Provisions in the Local Telecommunications Act of 1996*, CC Docket No. 96-98, Declaration of C. Michael Pfau on Behalf of AT&T Corp. at 18-21, Filed July 17, 2002 ("Pfau Decl.").

79. *See* Verizon Report, at 1, 12.

80. *Id.* at 12, n. 53. Verizon derives its total figure of 184,000 route miles from the 2002 CLEC Report by New Paradigm Resources Group, Inc.

81. *See* Verizon Report, at 12.

82. *See* McLeodUSA Inc., Form 10K, on file with the Securities and Exchange Commission at 24.

fiber network spans only 4,300 miles.[83] And Adelphia Business Solutions reports that it has 9,536 local route miles and 7,879 long-haul miles.[84] Thus, of the nearly 70,000 route miles operated by the three of the largest CLEC networks, only 19,000 — or 27 percent — are local. This hardly qualifies as a majority.

51. In addition, many CLECs included in the list from which Verizon arrived at its total of 184,000 route miles do not even provide special access services. For example, the New Paradigm report lists Knology Broadband as having 5,568 route miles of fiber, and Verizon apparently counts these miles in reaching its total of 184,000. But according to New Paradigm, Knology does not generate any revenue from special access services.[85] In fact, eight of the CLECs included in the list from which Verizon arrived at its total figure do not generate any revenue from special access services.[86] In addition, several other CLECs, such as CTC Communications Corp., generate only one or two percent of their revenues from special access services — again, indicating that most of the route miles operated by these companies are not relevant to an analysis of competitive fiber special access services. Verizon does not take into account any of these considerations in asserting that a majority of the 184,000 route miles operated by CLECs are local. It simply makes this assertion and then treats it as fact. But based

83. *See XO Launches Broadband Services in San Antonio*, Jan. 10, 2001, press release available at http://www.xo.com/news/54.html; *XO Will Provide Nationwide Gigabit Ethernet Service*, Sept. 25, 2000, press release available at <http://www.xo.com/news/26.html>.

84. *See Adelphia Business Solutions, Inc. Announces Third Quarter Results of Operations*, Nov. 12, 2001, press release available at <http://www.prnewswire.com/cgi-bin/micro_stories.pl?ACCT=119453&TICK=ABIZQ&STORY=/www/story/11-12-2001/0001614064&EDATE=Nov+12,+2001>.

85. *See* CLEC Report 2002, Ch. 6 (15th ed.)

86. In addition to Knology, the following companies do not generate any revenue from special access services: RCN Corp.; Allegiance Telecom, Inc.; Advanced TelCom Group, Inc.; Choice One Communications; Global Crossing, Ltd.; Florida Digital Network; SunWest Communications. *See CLEC Report 2002*, Ch. 6 (15th ed.). Together, these companies operate 22,509 route miles of fiber. *Id.*, Ch. 4 at Table 13.

upon the evidence provided above, it is clear that the majority of route miles operated by CLECs are not local for purposes of provision of special access.

Wholesale Fiber Providers and Utility Competitors Are Not a Reliable Source of Supply.

52. Verizon also makes exaggerated claims about the availability of wholesale local fiber, stating that wholesale suppliers satisfy a large part of the CLEC's demand for interoffice transport.[87] As with its assertions about route miles, Verizon offers no evidence to support this claim, other than the self-promoting comments by some of the wholesale fiber providers themselves. But as AT&T has pointed out in other proceedings,[88] there are several reasons to doubt that wholesale fiber is a reliable source of supply for CLECs.

53. First, several analysts have questioned whether the wholesale dark fiber market is even a viable market.[89] Indeed, witnesses for the ILECs themselves have raised this concern, pointing out the difficulties involved in connecting to a fiber network that has already been built.[90] As one witness for Verizon has stated, "One doesn't plan and build fiber with the idea of going back and reopening splices and touching them. To the contrary, one builds with the intent that you won't ever have to go back."[91] Given these and other statements by the ILEC's own witnesses, it

87. *See* Verizon Report, at 15.

88. *See Review of the Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-339, No. 96-98 & No. 98-147, Declaration of C. Michael Pfau on Behalf of AT&T Corp. at paras. 35-47, ("Pfau Declaration").

89. *Id.*, at para. 37 & n.18 (quoting U.S. Wholesale Wavelength Services 6337-64, Frost & Sullivan 2001, p.7).

90. *Id.,* at para. 39.

91. *Id.*

is more than a little surprising that Verizon now suggest that access to dark fiber will be easy or quickly attainable.

54. The second major obstacle to the use of wholesale fiber is the precarious financial situation the industry now finds itself in. Verizon's presentation of the facts is once again trapped in a time warp, touting the promise of the wholesale fiber industry as if the bubble era still existed. But the bubble has burst, and the "wholesale data market has been one of the segments most severely affected by the telecommunication's industry's turmoil."[92] "After several years of initially promising growth, the carriers' carrier industry is now under the gun. Some firms have already ceased operating, others are in Chapter 11 looking to recover, and many others are struggling."[93] Indeed, of the nine companies cited by Verizon as wholesale local fiber suppliers, three have filed for Chapter 11 bankruptcy, and several others have experienced financial difficulty.[94] Others, such as American Fiber Systems and Fibertech Networks, have announced plans to develop significant networks, but have so far only deployed dark fiber in a handful of smaller markets.

55. Forecasts for the future are equally dim. "The shakeout gripping the U.S. carrier industry is not over," a recent industry analysis declared.[95] "Simply put, there are still too many players with too much debt and little competitive differentiation chasing too few customers, who

92. *See North American Wholesale Data Market on the Ropes* at 2, Gartner Dataquest, November 13, 2002 ("On the Ropes").

93. *The Carriers' Carrier Playbook* at 3, The Yankee Group, August 2002.

94. The suppliers that have declared bankruptcy are Metromedia Fiber Networks, Northeast Optic Network, and Yipes Communications. In addition, both Progress Telecom and NEESCom reported losses in recent public disclosures. *See* Pfau Declaration at 24. Many of the other companies cited by Verizon are privately held, and therefore financial information is not readily available.

95. *Id.,* at 17.

are facing their own financial and operational problems."[96] The result is that industry revenues are expected to continue their recent decline for at least for the next two years.[97] And that will inevitably lead to more business failures. According to one analyst, "a number of these carriers will go through bankruptcy more than once, and the cleansing effect on the market cannot be experienced fully until more players actually consolidate or go out of business."[98]

56. Verizon suggests that many of the companies that have filed for bankruptcy are operating normally and that Chapter 11 has been little more than a speed bump on the road to success.[99] To support this claim, Verizon cites to press releases in which the companies state that they will continue to operate without interruption during their reorganizations. But company press releases, which are designed to comfort worried investors and customers, are hardly solid evidence that these companies will rebound from bankruptcy as reliable suppliers. And as I have pointed out above, bankruptcy is not just a normal business condition; it is a serious impediment to competition. Because dark fiber connectivity contracts are generally for lengthy periods of time (in the range of 20-years), the buying carrier must have confidence that the supplying carrier will be sufficiently stable to engage in long-term relationships. Companies that have recently emerged from bankruptcy or that have experienced financial difficulty are unlikely to instill that kind of confidence. As one industry analyst points out, "restructuring under Chapter 11 protection may provide a new lease on life for a few firms, but it is not a magic bullet

96. *Id.*

97. *See* Wholesale Voice Services 6339-63, Frost & Sullivan 2002, at 2.

98. *See* On the Ropes, at 4.

99. *See* Verizon Report, at 16.

for all that ails the carriers' carrier industry. In fact, it may actually prolong industry turmoil and uncertainty."[100]

57. Verizon's final claim is that the entry of utility companies into the wholesale supply business will provide CLECs with the fiber they need for special access.[101] But this assertion is as unsupported as all the others that Verizon has made. Although some utility companies have expressed an intention to supply fiber, there is no evidence that any of the utility companies listed by Verizon will soon become significant players in the wholesale market. Indeed, of the sixteen companies listed by Verizon, seven give no indication on their websites that they even offer carrier services; one has ceased its telecommunications operations; one is bankrupt; and one does not own its own metro fiber.[102] Of the remaining companies, one expresses a lack of interest in providing dark fiber. Utility companies may eventually have some success in providing limited metro fiber services because of their low incremental cost of deploying fiber in existing rights-of way, using existing structures and construction resources.[103] But utilities have no obligation to provide supply to CLECs, nor do they have any incentive to price their services below those of ILEC alternatives, such as special access. It is therefore premature to conclude that utilities will become a viable source of supply for CLECs.

The Evidence Shows that ILECs Have Undermined Downstream Service Competition.

58. Verizon devotes considerable effort to demonstrating that the ILECs have not yet undermined competition in markets that employ special access services as an input, and claims that

100. *See* The Carriers' Carrier Playbook, at 17.

101. *See* Verizon Report, at 18.

102. *See,* e.g., Pfau Declaration, at para. 46.

103. *Id.,* at para. 47.

evidence of competition in these markets shows that the ILECs are not engaging in price squeezes and related anti-competitive power available to them through market power in special access services. The arguments prove nothing regarding competition in the market for special access services, nor do they rebut or present any inconsistency with evidence that has been presented to the Commission that the ILECs have in fact engaged in such anti-competitive activities.

59. Even if Verizon's competition figures in downstream markets could be accepted as true, the evidence has no bearing on any conclusion that might be drawn about special access competition. ILECs' having the opportunity to gain market share in these markets is precisely what provides ILECs with the incentive, combined with the ability provided by their dominance over special access facilities, to engage in anti-competitive conduct. Showing the robustness of competition in those markets only indicates that, due to resulting competitive margins, non-ILEC competitors will be vulnerable over time to anti-competitive actions. And, of course, the Verizon materials show that the ILECs have been gaining market share in the long distance and ATM/Frame Relay markets, just as would be expected if they were engaging in anti-competitive price squeezes and non-price discrimination against downstream competitors.[104]

60. Indeed, Verizon confirms that, for two of the largest markets, RBOCs' market share increases have been limited only by regulations that are disappearing monthly, and Verizon concedes that RBOCs in fact dominate the third market, for local services provided to large businesses. Verizon claims that RBOCs have not yet established a significant market share in enterprise long distance and then candidly notes that "[t]he Bell Companies have only recently begun providing long distance service to business customers in some states."[105] Verizon

104. *See* Verizon Report, at 29-30.

105. *Id.*, at 29.

estimates that RBOCs collect "less than 15 percent of nationwide ATM and Frame Relay revenues" and then attributes this fact as "due to the restrictions on provision of interLATA services."[106] Verizon does not even attempt to minimize the RBOC share of local services for large business customers, other than to note that CLECs serve a small minority of switched access lines using their own facilities *or* resold ILEC lines. Blinking at reality, Verizon seeks to establish the vibrancy of competition by quoting a CLEC industry group's assessment of its own members as "solid, well-financed companies [ready] to compete head-to head with Bell companies."[107]

61. Verizon's market share evidence is entirely consistent with the structure of markets vulnerable to and affected by a monopolist's anticompetitive actions, and in fact evidence of those abuses in the special access market is widespread. AT&T has provided the Commission with pervasive evidence of non-price discrimination, particularly in the provisioning of special access service to competitors, and the NYPSC has documented widespread non-price practices with anti-competitive implications for markets that require RBOC special access services as an input.[108] Similarly, AT&T has documented that the RBOCs engage in classic price squeeze tactics: in more than half the areas examined in a wide-ranging study, the RBOCs charged AT&T far more for special access than charges to its retail customers for intraLATA frame relay or ATM ports — in some areas, 150% more than a rate that would have allowed AT&T to provide a competitive offering.[109]

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106. *Id*., at 30.

107. *Id*., at 31-32 (quoting statement of ALTS, from Communications Daily, CLEC Industry Will Revive in 2003, Report Says (Oct. 18, 2002).

108. *See Comments of AT&T, Review of Regulatory Requirements for Incumbent LEC Broadband Telecommunications Services*, CC Docket 01-337, at 32-37 (March 1, 2002) (presenting evidence and surveying NYPSC reports).

109. *Id.,* at 33 (citing Benway Declaration).

3. ARMIS RESULTS PROVIDE A VALID DEMONSTRATION OF SPECIAL ACCESS RATES OF RETURN THAT ARE EXCESSIVE BY ANY REASONABLE STANDARD

ARMIS data provides a *conservative* estimate of RBOC rates of return on Special Access Services, and confirms that these are clearly excessive by any reasonable standard.

62. Each of the RBOCs has taken exception to AT&T's use of ARMIS data to demonstrate that the RBOCs have for several years been earning excessive rates of return on special access services, and that these rates of return are increasing at the same time as the RBOCs obtain greater and greater pricing flexibility. The RBOCs' general and specific criticisms of such ARMIS-based conclusions are without merit.

63. ARMIS is simply not the regulatory white elephant that the RBOCs make it out to be. Although ARMIS has been scaled back since the onset of price cap regulation, the Commission has repeatedly resisted eliminating the core reporting requirements of the ARMIS system. The Wireline Competition Bureau's Industry Analysis Division states in "ARMIS Frequently Asked Questions" that the data is used to support the Commission's analysis of broad policy issues, including the "Financial Conditions of the Industry (How Carriers are Doing and How Our Regulatory Programs are Working)" and "Consolidations and Mergers (Measure Changes in Productivity, Profitability, Service Quality)," as well as numerous areas of focused study, including "Rate development," "Depreciation," "Cost," "Financial Analyses," "Rate of Return," "Trend Analysis," and "Identification of Audit Topic/Subjects."[110]

64. Moreover, even as ARMIS has been revised, the FCC has made it clear that the reporting requirements support the Commission's ability to monitor the effectiveness of its regulatory policies. The Commission has repeatedly signaled that price regulation does not

110. ARMIS FAQ, embedded file at http://www.fcc.gov/wcb/armis/ (accessed 1/22/03).

make its cost accounting rules, as reported under ARMIS, obsolete.[111] The Commission has appropriately resisted the RBOCs' persistent attempts to make ARMIS a tool of deregulation rather than a regulatory tool that gets updated to reflect changes in regulatory requirements made in response to such competition as has been shown to exist.[112]

65. Each of the RBOCs advances the *possibility* that the specific allocation of costs and revenues to individual service categories, as reflected in ARMIS, *could* result in the understatement of special access costs (or the overstatement of revenues), and hence in an overstatement of rates of return on special access services. However, the RBOCs offer very few specific examples to support this claim, and the several that they do provide cannot begin to account for the very significant excess earnings levels that AT&T has calculated based upon the ARMIS data.[113] Where the RBOCs' claims have been articulated in sufficient detail to permit it, I have examined these specific criticisms and have determined that they are either (a) erroneous, (b) irrelevant to special access, (c) have an insignificant financial impact upon the special access

111. Comprehensive Review of Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers: Phase I, CC Docket 99-253, released March 8, 2000, at para. 48: "The Commission continues to require accounting and financial data about these carriers to make informed regulatory judgments on numerous policy and ratemaking issues. Furthermore, under the current regulatory price cap scheme, carriers have the ability to seek full recovery of regulated costs through low-end adjustments, as well as taking claims. Thus, our continued monitoring of the reasonableness of these costs is necessary." See also, 2000 Biennial Regulatory Review – Comprehensive Review of the Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers, Phase 2, CC Docket 99-253, FCC 00-199, released November 1, 2001, at paras. 10-12.

112. *See, e.g.*, 2000 Biennial Regulatory Review of Accounting and ARMIS Requirements, supra, at para. 6: "In adopting these rule changes, we have attempted to steer a course that avoids both deregulation simply for its own sake and the countervailing temptation to retain rules that may no longer be necessary."

113. As an aside, it should be noted that the RBOCs are hardly passive recipients of the Commission's cost allocation rules. Over the years, RBOC input has worked to shape cost accounting and other reporting requirements in ways that, if anything, work to support, and not frustrate, RBOC strategic goals.

rates of return as calculated by AT&T, and/or (d) offset by other allocation adjustments that cut in the opposite direction.

66. *DSL costs and revenues*. Kahn/Taylor, BellSouth and Qwest note that most carriers include DSL revenues in ARMIS-reported special access revenues, while special access accounts are typically assigned only a fraction of the costs.[114] Qwest indicates that:

> the rules assign revenues associated with Digital Subscriber Line ("DSL") services and interstate packet switching services to the special access element, but assign a significant portion of the associated interstate costs to other elements. Taken together, these issues significantly inflate the rate-of-return numbers upon which AT&T places so much reliance.[115]

The actual impact, however, of this DSL revenue upon special access rates of return is demonstrably minor. First, SBC *does not* include DSL revenues in its special access service category.[116] As for the other RBOCs, the Table below excludes DSL revenues based upon Kahn/Taylor estimates, and recalculates special access rates of return with DSL revenues removed.

114. Kahn/Taylor Decl., at 14-15; BellSouth Comments at 6; Qwest Comments at 4-5.

115. Qwest Comments, at 4.

116. Kahn/Taylor Decl., at fn. 28.

Table 12

Estimated Interstate Special Access Costs and Revenues
By RBOC (Including GTE)
Using Kahn/Taylor DSL Revenue Assumptions
$ in Thousands

	BellSouth	Qwest	SBC	Verizon	Sum RBOC
	2001	2001	2001	2001	2001
Revenues	1,853,719	$1,547,442	$4,374,967	$4,656,039	$12,432,167
Expenses	651,550	$540,240	$1,286,951	$2,564,752	$5,043,493
Net Return	751,379	$646,769	$1,928,324	$1,252,839	$4,579,311
Net investment	1,525,302	$1,407,245	$3,531,727	$5,768,191	$12,232,465
Rate of Return (%)	49.26%	45.96%	54.60%	21.72%	37.44%
Revenue Attributable to DSL	$264,000	$39,689	$0	$106,311	$410,000
Rate of Return without DSL	31.95%	43.14%	54.60%	19.88%	34.08%

Source: ARMIS Table 43-01, Accounts 1090, 1190, 1910, 1915. Revenue figures are based on Kahn/Taylor assertion that total DSL revenues in 2001 for BellSouth, Verizon and Qwest were $410 million (Kahn/Taylor, at 15). BellSouth DSL revenue figures from the BellSouth 2001 Annual Report, Verizon and Qwest figures are estimates based on proportion of each company's DSL subscribers and residual revenues from the Kahn/Taylor revenue figure after removal of BellSouth revenues. As noted by Kahn/Taylor, SBC DSL revenues are not included in special access ARMIS data, and therefore have not been removed.

67. Removing all DSL revenues for all RBOCs claiming to book those revenues to special access accounts reduces the special access rates of return by about 3.3%. Total RBOC return on special access services, per ARMIS, would decrease from 37.44% to 34.08% *if DSL revenues are removed* but without any other adjustments. This estimate, however, is likely to be highly conservative (i.e., to understate the residual special access rates of return) since, as explained below, it is also likely that at least some, perhaps even most, DSL investment and associated expenses are *also* included in special access accounts. Indeed, BellSouth has specifically noted that it assigns DSLAM circuit investment to special access, confirming the conservative nature

of this estimate.[117] Inasmuch as Kahn/Taylor's DSL revenue figure of $410-million is unsupported and refers only to 2001 revenues, I have prepared an additional estimate of special access rates of return without DSL revenues, using verifiable sources. Table 12 below contains rate of return calculations employing alternate estimated DSL revenues.

117. BellSouth Comments, at fn. 6.

Table 13

Estimated Interstate Special Access Costs and Revenues
By RBOC (Including GTE)
$ in Thousands

	BellSouth		Qwest		SBC		Verizon		Sum RBOC	
	2000	2001	2000	2001	2000	2001	2000	2001	2000	2001
Revenues	1,233,259	1,853,719	$1,226,147	$1,547,442	$3,405,544	$4,374,967	$3,718,755	$4,656,039	$9,583,705	$12,432,167
Expenses	494,806	651,550	$517,281	$540,240	$1,374,033	$1,286,951	$2,387,030	$2,564,752	$4,773,150	$5,043,493
Net Return	458,996	751,379	$452,893	$646,769	$1,261,469	$1,928,324	$793,275	$1,252,839	$2,966,633	$4,579,311
Net investment	1,247,668	1,525,302	$1,181,070	$1,407,245	$2,919,756	$3,531,727	$5,102,557	$5,768,191	$10,451,051	$12,232,465
Rate of Return (%)	36.79%	49.26%	38.35%	45.96%	43.20%	54.60%	15.55%	21.72%	28.39%	37.44%
Revenue Attributable to DSL	$51,600	$183,456	$88,193	$159,197	$0	$0	$143,280	$377,622	$283,073	$720,275
Rate of Return without DSL	32.65%	37.23%	30.88%	34.65%	43.20%	54.60%	12.74%	15.17%	25.68%	31.55%

Source: ARMIS Table 43-01, Accounts 1090, 1190, 1910, 1915. DSL Revenue figures are based on the average of prior and current year-end DSL subscriber figures (where 1999 subscriber figures were not released, the number was assumed to be 0) multiplied by the average annual revenue from broadband access, as estimated by McKinsey & Company/JP Morgan in *Industry Analysis: Broadband 2001,* April 2, 2001, at Table 2. As noted by Kahn/Taylor, SBC DSL revenues are not included in special access ARMIS data, and therefore have not been removed.

68. Using this alternative analysis, the special access rate of return drops by slightly less than 6% for 2001 (and less than 3% for 2000). Nevertheless, the RBOCs still enjoyed rates of return on special access services above 30% which, *by any conventional standard* — and especially during the current economic downturn — is indicative of supracompetitive earnings arising through the RBOCs' exercise of market power. While BellSouth, Qwest and Kahn/ Taylor may attempt to muddy the water by raising the "DSL issue," even the "worst case scenario" — where all DSL revenues are included and all DSL costs are excluded — cannot "explain" the persistently excessive rates of return that prevail with respect to special access services.[118]

69. Significantly, while the RBOCs may *claim* that DSL investments and expenses are not being allocated to special access, recent investment trends tend to suggest otherwise. As the following table confirms, between 1996 and 2001, RBOC (including GTE) special access investments grew from $5.7-billion to more than $12.2-billion. By comparison, most other categories of RBOC interstate investment remained largely unchanged over the corresponding time frame, and intrastate investments actually *decreased* by nearly $10-billion. Given the rapid growth of DSL and the high capital costs that have been ascribed to its deployment, it is difficult to imagine any other explanation for the more than doubling of special access investment while all other categories remained essentially the same or even decreased, if DSL is *not* included within

118. In several other proceedings before the Commission, the RBOCs have sought to portray the market for DSL as so highly competitive as to justify regulatory forbearance, if not outright deregulation. See, e.g. *SBC Petition for Expedited Ruling that it is Non-Dominant in its Provision of Advanced Services and for Forbearance from Dominant Carrier Regulation of Those Services*, CC Docket No. 01-337, SBC Petition, October 3, 2001. Their experts have suggested that the highly competitive nature of the "high-speed Internet access market," wherein DSL competes with cable modem services, has placed the RBOCs in a non-dominant position and, in fact, has not even permitted them to recover the costs of providing ADSL services, which are put as high as $86 per month. See, Declaration of Robert W. Crandall and J. Gregory Sidak, filed as Attachment A in the above petition, at 51. It would seem that, in the various "broadband" proceedings, DSL is actually being provided at a loss, whereas in the instant docket DSL is portrayed as being so enormously profitable that it is pushing up special access returns to supracompetitive levels. At the very least, these DSL stories *du jour* demand careful scrutiny.

those special access investments. And, of course, if DSL costs *are* being included in the ARMIS data for special access, then it is certainly appropriate to also include corresponding DSL revenues, as had been done in the Friedlander declaration filed with AT&T's Petition.[119] Accordingly, the figures provided by AT&T for special access rates of return — which in some cases exceeded 50% — have in no sense been impeached by the RBOC experts.

70. *Mismatch between allocation of expenses and revenues for marketing*. Verizon claims that "marketing expenses are allocated across all access categories, but that the associated revenues are recovered from common line and special access."[120] This claim is unfounded. Prior to price cap regulation, marketing expenses were allocated to and recovered from all interstate services in proportion to the investments assigned by the Part 69 cost allocation rules. The Commission's May 1997 *Access Reform Order* retained the assignment of marketing costs to special access and interexchange services that are marketed to retail customers, but removed marketing from switched access elements (by reducing the price cap indices for the common line, traffic sensitive, and trunking baskets) sold exclusively on a wholesale basis.[121] Neither this change, nor any subsequent Commission action, has diminished the level of marketing expenses recovered from special access rates.[122]

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119. Declaration of Stephen Friedlander on Behalf of AT&T Corp., RM 10593, October 15, 2002.

120. Verizon Comments, at 22.

121. *Access Charge Reform*, First Report and Order, FCC 97-158, released May 16, 1997, para. 323.

122. As another example of a category-specific ARMIS cost-revenue mismatch, Verizon mentions that "amounts collected for universal service recovery are booked as common line revenues, while amounts due to USAC [Universal Service Administrative Corporation] are recorded in the interexchange category." Verizon Comments at 22, fn. 50. However, neither the costs nor the revenues in question have any impact upon special access and, thus, Verizon's example is completely irrelevant to the matter at hand.

71. *Packet switching costs not in special access*. Qwest claims that packet switching costs incurred to provide certain special access services (Frame Relay, ATM) are assigned to the general switching category, and not to special access.[123] However, Qwest does not quantify the amount of costs that it claims are misallocated. Moreover, Qwest neither claims nor makes any effort to establish in its comments that revenues associated with the switching functions used to provide frame relay and ATM services are not also being reflected in one of the several different switching *revenue* accounts identified in Part 32. Put simply, Qwest has failed to demonstrate any mismatch, inasmuch as it has focused solely upon the assignment of *costs* and not addressed the treatment of the corresponding *revenues*. The Commission thus has no basis to evaluate the validity or importance of criticisms such as this one, when the RBOCs, which have by far the best access to the underlying information, present only their contentions but with no facts or specifics to back them up.

72. *Secondary and tertiary expenses*: Finally, Qwest complains that because carriers are required to assign secondary and tertiary expenses in proportion to the primary investments assigned to a category, any potential underallocation of primary investments to special access would be exacerbated. However, this is merely another theoretical argument. As discussed above, the RBOCs have simply not established that primary investments are not being properly assigned to the special access category. Moreover, the magnitude of these secondary and tertiary expenses is simply not large enough to offset to any significant extent the RBOCs' substantial overearning for the special access services.

73. It is also worth recalling that ARMIS costs are *embedded* costs, which are generally higher than forward-looking incremental costs (i.e., TELRIC). If forward-looking costs of

123. Qwest Comments, at 12.

special access were substituted for the embedded costs from ARMIS, the resulting rates of return on forward-looking investment levels would be even higher.

74. In fact, while the RBOCs' service examples fail to show that ARMIS underallocates costs to special access services (or overstates the appropriate revenues), historical experience and costing trends actually support precisely the opposite conclusion. The RBOCs have a poor track record for maintaining accurate records of their network investments, particularly as to the removal of plant no longer in service. The Commission's 1999 audit reports of RBOCs' continuing property records found that these carriers could not account for approximately $5-billion in central office equipment that remained on their books.[124] If similar record-keeping practices exist with respect to special access investments, it is likely that the RBOCs' regulatory books of account also include costs for facilities that are no longer in service. The continuing property records audits also demonstrated that the nature of the record-keeping errors was consistently biased toward *including* items that should have been excluded, rather than the other way around. Accordingly, it is far more likely that the embedded investment costs recorded in ARMIS represent an *overstatement* of actual plant in service, thereby further contributing to the highly conservative character of the Friedlander ROR figures.

75. The consistent upward trend in the RBOCs' rates of return for special access also tends to belie their objections regarding the reliability of the ARMIS data. Even if there are allocation errors in ARMIS, the RBOCs have offered no evidence to suggest that whatever misallocations might actually be present, if any, are anything other than consistent from year to year. The presence of any systematic bias in the data may impact the accuracy of individual data points,

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124. *1998 Biennial Regulatory Review – Review of Depreciation Requirements for Incumbent Local Exchange Carriers; Ameritech Corporation Telephone Operating Companies' Continuing Property Records Audit, et. al., GTE Telephone Operating Companies Release of Information Obtained During Joint Audit*, CC Dockets 98-137 and 99-117, AAD File No. 98-26, released April 3, 2000, FCC 00-119, at para. 15.

but as long as the misallocation bias is systematic over time, the trends revealed through an examination of multiple years' results will still provide an accurate picture of ongoing market dynamics. Although there is inevitably some subjectivity involved in allocating costs that cannot be directly assigned, the methodology itself, and hence the resulting allocations, do not fluctuate significantly from year to year. Thus, if competition for special access services were actually constraining prices as the RBOCs contend, the ROR for special access would tend to decrease over time. But in fact it is actually *increasing*, suggesting not only that price-constraining competition is not present, but that the extent of ongoing RBOC market power with respect to these services is growing.

76. Finally, suddenly *relying* upon ARMIS data, Kahn and Taylor have contended that the average revenue per line for special access has actually been decreasing "by more than 1% per year" during the 1996-2001 period. My own review of the data suggests errors in the Kahn/ Taylor analysis. Based upon replicable ARMIS data, the average revenue per line, decreased by only two-tenths of one percent over the entire period (a reduction in average annual revenue per line of only $0.33). As I will discuss in more detail below, use of an average annual revenue per line calculated using DS-O equivalents is seriously flawed, but even accepting the flawed Kahn/ Taylor evidence, the data proves, rather than disproves AT&T's allegations. At page 16 of the Kahn/Taylor declaration, a figure appears entitled "RBOC Special Access Revenue per Special Access Line". Even a cursory review of that Figure reveals declining revenue per line amounts occurred during the period 1997-2000 — when the special access rates were still generally subject to price caps and the x-factor-driven annual reductions associated therewith — and that there has been a total reversal of that trend (recouping virtually all of the reductions during the prior four years) in the RBOCs' revenues for 2001 — the first full year during which any of the RBOCs had pricing flexibility for Special Access Services.[125]

125. BellSouth, the first RBOC to apply for and be granted pricing flexibility, approved
(continued...)

77. Moreover, assuming (as Kahn and Taylor do) for sake of argument that the analysis of an average "revenue" per line based upon DS-0 equivalents has any validity, then one should be able to examine the average "investment" and average "expense" per line as well. As Table 14 below reveals, during the 1996 to 2001 period in which average revenue per line declined by only two tenths of percent, average investment and average expense per line each declined by almost half. Review of those "average" per line results for those three categories more than proves AT&T's initial point. During the 1996 to 2001 period, while the average revenue per line dropped only $0.33 from $157.00 to $156.67, the average expense per line dropped by $59.78, from $123.33 to $63.55, and the average investment per line dropped by $103.45, from $257.50 to $154.05. Overall, the results demonstrate that by 2001, the net return, per DS-0 equivalent access line had climbed by more than 185%, from the $20.79 of 1996, to $57.76.

Table 14

Interstate Special Access Costs and Revenues
RBOC Totals (Including GTE)

	1996	1997	1998	1999	2000	2001	Change 1996-2001
(a) Revenues (000)	$3,464,545	$4,312,543	$5,536,133	$7,141,094	$9,591,843	$12,450,913	259.4%
(b) Expenses (000)	$2,721,599	$3,275,870	$3,404,629	$3,988,276	$4,780,293	$5,050,329	85.6%
(c) Net investment (000)	$5,682,447	$6,373,074	$7,149,582	$8,440,569	$10,462,621	$12,242,494	115.4%
(d) Net return	$445,552	$617,253	$1,279,675	$1,906,740	$2,967,064	$4,590,506	930.3%
(e) Rate of Return (d/c)	7.8%	9.7%	17.9%	22.6%	28.4%	37.5%	378.2%
(f) Special Access Lines	22,067,774	26,260,133	33,999,156	48,708,169	65,451,767	79,470,270	260.1%
(g) Revenues per line (a/f)	$157.00	$164.22	$162.83	$146.61	$146.55	$156.67	-0.2%
(h) Expenses per line (b/f)	$123.33	$124.75	$100.14	$81.88	$73.04	$63.55	-48.5%
(I) Investment per line (c/f)	$257.50	$242.69	$210.29	$173.29	$159.85	$154.05	-40.2%
(j) Net return per line (d/f)	$20.19	$23.51	$37.64	$39.15	$45.33	$57.76	186.1%

Sources of data:
Financial data from ARMIS 43-01, Column S, Rows 1090, 1190, 1910, 1915, and 1920.
Lines are counted in terms of voice-grade equivalents, from ARMIS 43-08, row 910, columns K and L.

125. (...continued)
authority at the end of 2000. BellSouth Petition for Pricing Flexibility for Special Access and Dedicated Transport Services, CCB/CPD No. 00-20, Memorandum Opinion and Order, 15 FCC Rcd 24588, (Dec. 15, 2000).

78. Moreover, translating ARMIS data into DS-0 equivalent lines, as Kahn and Taylor have done, results in a flawed analysis. It is highly likely that the higher-capacity special access services, at the DS-3 and OCn levels, have experienced disproportionately greater growth than low-capacity DS-0 and DS-1 services. Since the effective price per DS-0 equivalent channel is lower in these higher capacity services, their likely disproportionate growth readily explains the apparent drop in DS-0 equivalent price levels (revenue per line). The more appropriate comparison, of course, is a like-for-like price change for the *same* capacity service. And as Tables 1 through 4 above clearly demonstrate, those prices in areas subject to Phase II pricing flexibility have been on the rise over the period since pricing flexibility became effective.

Performance data reported under ARMIS shows continuing problems in special access service quality.

79. Finally, in their declaration, Kahn and Taylor take issue with AT&T's observation that the RBOCs are not being constrained by competition to improve the quality of their special access services provisioning.[126] In particular, they claim that ARMIS data show a steady improvement in RBOC special access service provisioning between 1996 and 2001. Kahn and Taylor's analysis appears to be based on trouble reports per voice grade equivalent line, which means that the successful provisioning of an order involving one OCn circuit offsets many unsuccessful provisionings of lower bandwidth special access lines. A more realistic picture can be obtained by looking at trouble reports for special access service based on the "total number of orders or circuits," as shown in ARMIS report 43-05. When these data is analyzed, the picture of consistent improvement presented by Kahn and Taylor evaporates. As shown in the attached table (Attachment 2 to this Declaration), some RBOCs have done better than others. However, Ameritech, which reports by far the best performance, reports an anomalously high number of "orders or circuits" for the 2000 to 2001 period (three to four times as many as in the four prior

126. Kahn/Taylor Decl., at 16-17.

years), which could account, at least in part, for the apparent improvement in its trouble report percentages. Without these recent Ameritech numbers, RBOC trouble reports as a percentage of orders or circuits rose substantially from 1998 to 2001. In any event, even a consistent record of having trouble reports on more than half of all orders is hardly a commendable performance and is consistent with the conclusion presented by Ordover and Willig that the RBOCs are not constrained by competitive forces with respect to their service quality for special access services.

The foregoing statements are true and correct to the best of my knowledge, information and belief.

LEE L. SELWYN

Attachment 1

Statement of Qualifications

Statement of Qualifications

DR. LEE L. SELWYN

Dr. Lee L. Selwyn has been actively involved in the telecommunications field for more than twenty-five years, and is an internationally recognized authority on telecommunications regulation, economics and public policy. Dr. Selwyn founded the firm of Economics and Technology, Inc. in 1972, and has served as its President since that date. He received his Ph.D. degree from the Alfred P. Sloan School of Management at the Massachusetts Institute of Technology. He also holds a Master of Science degree in Industrial Management from MIT and a Bachelor of Arts degree with honors in Economics from Queens College of the City University of New York.

Dr. Selwyn has testified as an expert on rate design, service cost analysis, form of regulation, and other telecommunications policy issues in telecommunications regulatory proceedings before some forty state commissions, the Federal Communications Commission and the Canadian Radio-television and Telecommunications Commission, among others. He has appeared as a witness on behalf of commercial organizations, non-profit institutions, as well as local, state and federal government authorities responsible for telecommunications regulation and consumer advocacy.

He has served or is now serving as a consultant to numerous state utilities commissions including those in Arizona, Minnesota, Kansas, Kentucky, the District of Columbia, Connecticut, California, Delaware, Maine, Massachusetts, New Hampshire, Vermont, New Mexico, Wisconsin and Washington State, the Office of Telecommunications Policy (Executive Office of the President), the National Telecommunications and Information Administration, the Federal Communications Commission, the Canadian Radio-television and Telecommunications Commission, the United Kingdom Office of Telecommunications, and the Secretaria de Comunicaciones y Transportes of the Republic of Mexico. He has also served as an advisor on telecommunications regulatory matters to the International Communications Association and the Ad Hoc Telecommunications Users Committee, as well as to a number of major corporate telecommunications users, information services providers, paging and cellular carriers, and specialized access services carriers.

Dr. Selwyn has presented testimony as an invited witness before the U.S. House of Representatives Subcommittee on Telecommunications, Consumer Protection and Finance and before the U.S. Senate Judiciary Committee, on subjects dealing with restructuring and deregulation of portions of the telecommunications industry.

In 1970, he was awarded a Post-Doctoral Research Grant in Public Utility Economics under a program sponsored by the American Telephone and Telegraph Company, to conduct research on the economic effects of telephone rate structures upon the computer time sharing industry. This work was conducted at Harvard University's Program on Technology and Society, where he was appointed as a Research Associate. Dr. Selwyn was also a member of the faculty at the College of Business Administration at Boston University from 1968 until 1973, where he taught courses in economics, finance and management information systems.

Dr. Selwyn has published numerous papers and articles in professional and trade journals on the subject of telecommunications service regulation, cost methodology, rate design and pricing policy. These have included:

"Taxes, Corporate Financial Policy and Return to Investors"
National Tax Journal, Vol. XX, No.4, December 1967.

"Pricing Telephone Terminal Equipment Under Competition"
Public Utilities Fortnightly, December 8, 1977.

"Deregulation, Competition, and Regulatory Responsibility in the Telecommunications Industry"
Presented at the 1979 Rate Symposium on Problems of Regulated Industries - Sponsored by: The American University, Foster Associates, Inc., Missouri Public Service Commission, University of Missouri-Columbia, Kansas City, MO, February 11 - 14, 1979.

"Sifting Out the Economic Costs of Terminal Equipment Services"
Telephone Engineer and Management, October 15, 1979.

"Usage-Sensitive Pricing" (with G. F. Borton)
(a three part series)
Telephony, January 7, 28, February 11, 1980.

"Perspectives on Usage-Sensitive Pricing"
Public Utilities Fortnightly, May 7, 1981.

"Diversification, Deregulation, and Increased Uncertainty in the Public Utility Industries"
Comments Presented at the Thirteenth Annual Conference of the Institute of Public Utilities, Williamsburg, VA - December 14 - 16, 1981.

"Local Telephone Pricing: Is There a Better Way?; The Costs of LMS Exceed its Benefits: a Report on Recent U.S. Experience."
Proceedings of a conference held at Montreal, Quebec - Sponsored by Canadian Radio-Television and Telecommunications Commission and The Centre for the Study of Regulated Industries, McGill University, May 2 - 4, 1984.

"Long-Run Regulation of AT&T: A Key Element of A Competitive Telecommunications Policy"
Telematics, August 1984.

"Is Equal Access an Adequate Justification for Removing Restrictions on BOC Diversification?"
Presented at the Institute of Public Utilities Eighteenth Annual Conference, Williamsburg, VA - December 8 - 10, 1986.

"Market Power and Competition Under an Equal Access Environment"
Presented at the Sixteenth Annual Conference, "Impact of Deregulation and Market Forces on Public Utilities: The Future Role of Regulation" Institute of Public Utilities, Michigan State University, Williamsburg, VA - December 3 - 5, 1987.

"Contestable Markets: Theory vs. Fact"
Presented at the Conference on Current Issues in Telephone Regulations: Dominance and Cost Allocation in Interexchange Markets - Center for Legal and Regulatory Studies Department of Management Science and Information Systems - Graduate School of Business, University of Texas at Austin, October 5, 1987.

"The Sources and Exercise of Market Power in the Market for Interexchange Telecommunications Services"
Presented at the Nineteenth Annual Conference - "Alternatives to Traditional Regulation: Options for Reform" - Institute of Public Utilities, Michigan State University, Williamsburg, VA, December, 1987.

"Assessing Market Power and Competition in The Telecommunications Industry: Toward an Empirical Foundation for Regulatory Reform"
Federal Communications Law Journal, Vol. 40 Num. 2, April 1988.

"A Perspective on Price Caps as a Substitute for Traditional Revenue Requirements Regulation"
Presented at the Twentieth Annual Conference - "New Regulatory Concepts, Issues and Controversies" - Institute of Public Utilities, Michigan State University, Williamsburg, VA, December, 1988.

"The Sustainability of Competition in Light of New Technologies" (with D. N. Townsend and P. D. Kravtin)
Presented at the Twentieth Annual Conference - Institute of Public Utilities Michigan State University, Williamsburg, VA, December, 1988.

"Adapting Telecom Regulation to Industry Change: Promoting Development Without Compromising Ratepayer Protection" (with S. C. Lundquist)
IEEE Communications Magazine, January, 1989.

"The Role of Cost Based Pricing of Telecommunications Services in the Age of Technology and Competition"
Presented at National Regulatory Research Institute Conference, Seattle, July 20, 1990.

"A Public Good/Private Good Framework for Identifying POTS Objectives for the Public Switched Network" (with Patricia D. Kravtin and Paul S. Keller) Columbus, Ohio: *National Regulatory Research Institute,* September 1991.

"Telecommunications Regulation and Infrastructure Development: Alternative Models for the Public/Private Partnership"
Prepared for the Economic Symposium of the International Telecommunications Union Europe Telecom '92 Conference, Budapest, Hungary, October 15, 1992.

"Efficient Infrastructure Development and the Local Telephone Company's Role in Competitive Industry Environment" *Presented at the Twenty-Fourth Annual Conference, Institute of Public Utilities, Graduate School of Business, Michigan State University, "Shifting Boundaries between Regulation and Competition in Telecommunications and Energy"*, Williamsburg, VA, December 1992.

"Measurement of Telecommunications Productivity: Methods, Applications and Limitations" (with Françoise M. Clottes)
Presented at Organisation for Economic Cooperation and Development, Working Party on Telecommunication and Information Services Policies, '93 Conference "Defining Performance Indicators for Competitive Telecommunications Markets", Paris, France, February 8-9, 1993.

"Telecommunications Investment and Economic Development: Achieving efficiency and balance among competing public policy and stakeholder interests"
Presented at the 105th Annual Convention and Regulatory Symposium, National Association of Regulatory Utility Commissioners, New York, November 18, 1993.

"The Potential for Competition in the Market for Local Telephone Services" (with David N. Townsend and Paul S. Keller)
Presented at the Organization for Economic Cooperation and Development Workshop on Telecommunication Infrastructure Competition, December 6-7, 1993.

"Market Failure in Open Telecommunications Networks: Defining the new natural monopoly," *Utilities Policy,* Vol. 4, No. 1, January 1994.

The Enduring Local Bottleneck: Monopoly Power and the Local Exchange Carriers, (with Susan M. Gately, et al) a report prepared by ETI and Hatfield Associates, Inc. for AT&T, MCI and CompTel, February 1994.

Commercially Feasible Resale of Local Telecommunications Services: An Essential Step in the Transition to Effective Local Competition, (Susan M. Gately, et al) a report prepared by ETI for AT&T, July 1995.

"Efficient Public Investment in Telecommunications Infrastructure" *Land Economics*, Vol 71, No.3, August 1995.

Funding Universal Service: Maximizing Penetration and Efficiency in a Competitive Local Service Environment, Lee L. Selwyn with Susan M. Baldwin, under the direction of Donald Shepheard, A Time Warner Communications Policy White Paper, September 1995.

Stranded Investment and the New Regulatory Bargain, Lee L. Selwyn with Susan M. Baldwin, under the direction of Donald Shepheard, A Time Warner Communications Policy White Paper, September 1995

"Market Failure in Open Telecommunications Networks: Defining the new natural monopoly," in *Networks, Infrastructure, and the New Task for Regulation*, by Werner Sichel and Donal L. Alexander, eds., University of Michigan Press, 1996.

Establishing Effective Local Exchange Competition: A Recommended Approach Based Upon an Analysis of the United States Experience, Lee L. Selwyn, paper prepared for the Canadian Cable Television Association and filed as evidence in Telecom Public Notice CRTC 95-96, Local Interconnection and Network Component, January 26, 1996.

The Cost of Universal Service, A Critical Assessment of the Benchmark Cost Model, Susan M. Baldwin with Lee L. Selwyn, a report prepared by Economics and Technology, Inc. on behalf of the National Cable Television Association and submitted with Comments in FCC Docket No. CC-96-45, April 1996.

Economic Considerations in the Evaluation of Alternative Digital Television Proposals, Lee L. Selwyn (as Economic Consultant), paper prepared for the Computer Industry Coalition on Advanced Television Service, filed with comments in FCC MM Docket No. 87-268, In the Matter of Advanced Television Systems and Their Impact Upon the Existing Television Broadcast Service, July 11, 1996.

Assessing Incumbent LEC Claims to Special Revenue Recovery Mechanisms: Revenue opportunities, market assessments, and further empirical analysis of the "Gap" between embedded and forward-looking costs, Patricia D. Kravtin and Lee L. Selwyn, In the Matter of Access Charge Reform, in CC Docket No. 96-262, January 29, 1997.

The Use of Forward-Looking Economic Cost Proxy Models, Susan M. Baldwin and Lee L. Selwyn, Economics and Technology, Inc., February 1997.

The Effect of Internet Use On The Nation's Telephone Network, Lee L. Selwyn and Joseph W. Laszlo, a report prepared for the Internet Access Coalition, July 22, 1997.

Regulatory Treatment of ILEC Operations Support Systems Costs, Lee L. Selwyn, Economics and Technology, Inc., September 1997.

The "Connecticut Experience" with Telecommunications Competition: A Case in Getting it Wrong, Lee L. Selwyn, Helen E. Golding and Susan M. Gately, Economics and Technology, Inc., February 1998.

Where Have All The Numbers Gone?: Long-term Area Code Relief Policies and the Need for Short-term Reform, prepared by Economics and Technology, Inc. for the Ad Hoc Telecommunications Users Committee, International Communications Association, March 1998, second edition, June 2000.

Broken Promises: A Review of Bell Atlantic-Pennsylvania's Performance Under Chapter 30, Lee L. Selwyn, Sonia N. Jorge and Patricia D. Kravtin, Economics and Technology, Inc., June 1998.

Building A Broadband America: The Competitive Keys to the Future of the Internet, Lee L. Selwyn, Patricia D. Kravtin and Scott A. Coleman, a report prepared for the Competitive Broadband Coalition, May 1999.

Bringing Broadband to Rural America: Investment and Innovation In the Wake of the Telecom Act, Lee L. Selwyn, Scott C. Lundquist and Scott A. Coleman, a report prepared for the Competitive Broadband Coalition, September 1999.

Bringing Local Telephone Competition to Massachusetts, Lee L. Selwyn and Helen E. Golding, prepared for The Massachusetts Coalition for Competitive Phone Service, January 2000.

Subsidizing the Bell Monopolies: How Government Welfare Programs are Undermining Telecommunications Competition, Lee L. Selwyn, April 2002.

Dr. Selwyn has been an invited speaker at numerous seminars and conferences on telecommunications regulation and policy, including meetings and workshops sponsored by the National Telecommunications and Information Administration, the National Association of Regulatory Utility Commissioners, the U.S. General Services Administration, the Institute of Public Utilities at Michigan State University, the National Regulatory Research Institute at Ohio State University, the Harvard University Program on Information Resources Policy, the Columbia University Institute for Tele-Information, the International Communications Association, the Tele-Communications Association, the Western Conference of Public Service Commissioners, at the New England, Mid-America, Southern and Western regional PUC/PSC conferences, as well as at numerous conferences and workshops sponsored by individual regulatory agencies.

Attachment 2

Installation and Repair Intervals (Interexchange Access) — Annual

43-05: Table Ia. Installation and Repair Intervals (Interexchange Acc.) - Annual

Company Name	Row Title	All Special Access					
		1996	1997	1998	1999	2000	2001
BELLSOUTH	# Total Number of Orders or Circuits	86,000	106,649	145,185	127,801	178,631	194,276
BELLSOUTH	# Missed for Customer Reasons (MCR)		0	34,981	28,175	34,877	41,854
BELLSOUTH	% Commitments Met	89.18	88.46	85.14	85.12	89.66	96.27
BELLSOUTH	Average Interval (in days)	13.2	14	14.8	15.9	16.3	17.5
BELLSOUTH	# Total Trouble Reports	68,849	69,643	77,198	80,155	97,705	130,805
BELLSOUTH	% Trouble Reports	80%	65%	53%	63%	55%	67%
BELLSOUTH	Average Interval (in hours)	3.3	3.3	3.7	4.4	4.6	3.4
QWEST	# Total Number of Orders or Circuits	99,884	162,381	212,043	178,794	178,187	129,566
QWEST	# Missed for Customer Reasons (MCR)		0	27,537	70,210	87,796	60,660
QWEST	% Commitments Met	79.51	81.94	88.65	83.97	90.71	95.03
QWEST	Average Interval (in days)	14.2	20.8	22.8	23.6	21.9	15.4
QWEST	# Total Trouble Reports	89,302	96,531	95,603	111,773	120,439	120,756
QWEST	% Trouble Reports	89%	59%	45%	63%	68%	93%
QWEST	Average Interval (in hours)	5.2	3.4	4.6	4.4	3.4	2.7
SOUTHWESTERN	# Total Number of Orders or Circuits	50,727	62,966	56,419	43,594	34,917	136,614
SOUTHWESTERN	# Missed for Customer Reasons (MCR)		0	9,004	8,975	7,200	22,784
SOUTHWESTERN	% Commitments Met	80.9	80.1	97.41	97.02	94.32	86.84
SOUTHWESTERN	Average Interval (in days)	0	0	0	0	0	13.9
SOUTHWESTERN	# Total Trouble Reports	68,576	65,514	93,092	91,822	122,473	151,224
SOUTHWESTERN	% Trouble Reports	135%	104%	165%	211%	351%	111%
SOUTHWESTERN	Average Interval (in hours)	2.1	2.1	2.2	2.7	2.6	4.7
PACIFIC TELESIS	# Total Number of Orders or Circuits	58,419	66,370	59,142	135,676	80,737	90,032
PACIFIC TELESIS	# Missed for Customer Reasons (MCR)		0	15,127	24,078	16,795	13,895
PACIFIC TELESIS	% Commitments Met	93.63	89.4	89.31	74.68	69.53	74.63
PACIFIC TELESIS	Average Interval (in days)	22.6	20.8	20.1	22.3	37.3	20.7
PACIFIC TELESIS	# Total Trouble Reports	63,809	46,055	26,488	104,420	59,015	69,134
PACIFIC TELESIS	% Trouble Reports	109%	69%	45%	77%	73%	77%
PACIFIC TELESIS	Average Interval (in hours)	4.7	5	4.6	4.3	4.5	3.9
AMERITECH	# Total Number of Orders or Circuits	73,555	80,653	113,889	132,578	544,774	612,019
AMERITECH	# Missed for Customer Reasons (MCR)			21,919	20,257	36,386	26,294
AMERITECH	% Commitments Met	87.9	92.5	93.91	93.61	88.01	92.18
AMERITECH	Average Interval (in days)	19	13.1	14.6	15.7	15.6	15.3
AMERITECH	# Total Trouble Reports	41,196	40,314	40,907	31,548	28,633	64,533
AMERITECH	% Trouble Reports	56%	50%	36%	24%	5%	11%
AMERITECH	Average Interval (in hours)	3.7	3.1	3.1	3	2.9	5.8
BELL ATLANTIC	# Total Number of Orders or Circuits	73,660	246,767	236,655	208,399	206,146	207,098
BELL ATLANTIC	# Missed for Customer Reasons (MCR)		12,090	53,606	50,338	48,357	49,028
BELL ATLANTIC	% Commitments Met	77.53	96.53	94.45	84.71	82	81.19
BELL ATLANTIC	Average Interval (in days)	29.2	13	20.5	17.7	23.6	15.6
BELL ATLANTIC	# Total Trouble Reports	22,293	113,267	80,461	94,454	89,218	142,218
BELL ATLANTIC	% Trouble Reports	30%	46%	34%	45%	43%	69%
BELL ATLANTIC	Average Interval (in hours)	10.7	2.6	2.8	4.1	5.1	6
GTE CORP.	# Total Number of Orders or Circuits	57,376	60,495	47,972	56,157	65,916	83,314
GTE CORP.	# Missed for Customer Reasons (MCR)		0	16,980	28,706	22,049	13,214
GTE CORP.	% Commitments Met	92.26	89.7	89.55	90.26	84.35	96.01
GTE CORP.	Average Interval (in days)	11.52	13	21.1	21.3	28.3	22.7
GTE CORP.	# Total Trouble Reports	67,702	70,406	75,550	79,870	81,840	124,714
GTE CORP.	% Trouble Reports	118%	116%	157%	142%	124%	150%
GTE CORP.	Average Interval (in hours)	9	7	7.9	8.4	10.2	9.2
TOTAL RBOC	**# Total Number of Orders or Circuits**	**499,621**	**786,281**	**871,305**	**882,999**	**1,289,308**	**1,452,919**
TOTAL RBOC	**# Special Access Lines**	**22,067,774**	**26,260,133**	**33,999,156**	**48,708,169**	**65,451,767**	**79,470,270**
TOTAL RBOC	**# Total Trouble Reports**	**421,727**	**501,730**	**489,299**	**594,042**	**599,323**	**803,384**
TOTAL RBOC	**% Trouble Reports/Orders or Circuits**	**84%**	**64%**	**56%**	**67%**	**46%**	**55%**
TOTAL RBOC	**% Trouble Reports/Lines**	**1.91%**	**1.91%**	**1.44%**	**1.22%**	**0.92%**	**1.01%**
TOTAL RBOC WITHOUT AMERITECH:							
	# Total Number of Orders or Circuits	**426,066**	**705,628**	**757,416**	**750,421**	**744,534**	**840,900**
	# Total Trouble Reports	**380,531**	**461,416**	**448,392**	**562,494**	**570,690**	**738,851**
	% Trouble Reports	**89%**	**65%**	**59%**	**75%**	**77%**	**88%**